GRADUATE EDUCATION MASTER'S THESIS/PROJECT HANDBOOK

MA Education K-12, MA Special Education, and MA Teaching
Bethel University’s Graduate School
St. Paul, MN 55112

January 2018
# Table of Contents

Guidelines for Working with Your Thesis/Project Advisor ................................................................. 3
Description of Options for Earning a Master’s Degree ........................................................................... 3
Overview of Process for Completing the Thesis/Project ......................................................................... 6
Due Dates for Thesis/Project and Oral Defense ....................................................................................... 8
Timeline for Finishing the Thesis and Scheduling the Oral Defense ...................................................... 8
Writing the Thesis .................................................................................................................................... 12
Format of the Thesis/Project ....................................................................................................................... 15
Intellectual Property Rights ....................................................................................................................... 16
Samples ....................................................................................................................................................... 17
Appendix A .................................................................................................................................................. 28
Appendix B .................................................................................................................................................. 29
Appendix C .................................................................................................................................................. 30
We are so happy you are ready to start working on your thesis/master’s project. This handbook states the requirements for writing a thesis, or conducting a project, necessary to earn a master’s degree in Education K-12, Special Education, or Teaching. This is an opportunity for you to gain expertise in an area of interest. Developing research skills, and being able to discuss your research with others, is a critical skill for educators. Read this entire handbook before you begin working on your thesis.

Guidelines for Working with Your Thesis/Project Advisor

Here are some guidelines you should use when working with your advisor:

1. Contact the advisor when you are assigned one.
2. Provide the advisor with the thesis/project proposal (also called a prospectus) completed in EDUC755.
3. Consult with the advisor about a proposed timeline in advance. Be sure to follow the thesis/project timeline deadlines given in this handbook.
4. Give the advisor sections of the thesis/project at a time. Include previous drafts when submitting revisions.
5. Include a reference list with all drafts.
6. Submit all drafts in APA format.
7. Spell-check and proof-read drafts thoroughly before sending them to the advisor.
8. Assume that it will take at least two weeks for the advisor to read and give feedback on drafts. At particular times of the year, advisors may be unavailable or require additional time to respond to your thesis work. Please communicate with your advisor early if you have hard deadlines to meet.

Description of Options for Earning a Master’s Degree

Bethel’s Graduate School offers three master’s degrees: MA Education K-12, MA Special Education, and MA Teaching. This handbook applies to the master’s requirements for all three degrees. You may choose one of three types of theses:

1. Literature review
2. Literature review with application emphasis
3. Action research project

Students must consult with their advisor in choosing an acceptable topic with an appropriate scope. Students are strongly encouraged to select a topic that is relevant to their work in the field of education. The topic selection should also be relevant to the student’s professional development and contribution to the field in terms of providing educational leadership in the student’s area of study. All three options require a thorough review of the literature on the chosen topic, and students can expect to write multiple drafts of the thesis. Here is a comparison of the three options:
<table>
<thead>
<tr>
<th><strong>Literature Review</strong></th>
<th><strong>Literature Review with Application Emphasis</strong></th>
<th><strong>Action Research Project</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>The literature review is an unbiased look at the literature surrounding the chosen guiding question(s).</td>
<td>Identify an educational application in P-12 education for development, preferably one with potential for implementation. This application should reflect the area of study associated with the student's particular program emphasis.</td>
</tr>
<tr>
<td><strong>Guiding Question(s)</strong></td>
<td>Write one or more guiding questions, on a P-12 educational topic.</td>
<td>Write one or more guiding questions related to an application area.</td>
</tr>
<tr>
<td><strong>Review Literature</strong></td>
<td>Conduct a review of the literature to investigate the guiding question, and gather information from the literature that addresses the question</td>
<td>Conduct a review of the literature to support the identified application, in the chosen area</td>
</tr>
<tr>
<td><strong>Developing</strong></td>
<td>Nothing is developed in a literature review thesis.</td>
<td>Develop application materials in the area specified</td>
</tr>
<tr>
<td><strong>Doing the Research</strong></td>
<td>Critically evaluate the literature.</td>
<td>Work with the advisor in setting the parameters for the application. The application materials should be in a final, usable form. However, the application does not need to be piloted for the scope of this thesis.</td>
</tr>
<tr>
<td><strong>Concluding the Research</strong></td>
<td>Summarize the research; draw conclusions, suggest areas for future research, describe research limitations, and suggest areas for future research.</td>
<td>Reflect on the process (by addressing assumptions held before the research was done, reactions during the project, and how original assumptions may have changed as a result of completing the project), draw conclusions, identify implications for professionals in the field of education, and suggest areas for future research</td>
</tr>
<tr>
<td>Implications</td>
<td>Implications for both research and professionals in the field of education should be identified</td>
<td>Implications should address next steps to be taken, additional research that needs to be done, and/or how the findings relate to the school or teaching context</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Page Length Minimums | Chapter I: Introduction 5-10 pages  
Chapter II: Literature Review 30-40 pages  
Chapter III: Discussion and Conclusion 5-10 pages | Chapter I: Introduction 5-10 pages  
Chapter II: Literature Review 15-25 pages  
Chapter III: Application of the Research 5-10 pages  
Chapter IV: Discussion and Conclusion 5-10 pages | Chapter I: Introduction 5-10 pages  
Chapter II: Literature Review 15-25 pages  
Chapter III: Method 5-10 pages  
Chapter IV: Results 5-10 pages  
Chapter V: Discussion and Conclusion 5-10 pages |
| References | Minimum 30 | Minimum 20 | Minimum 20 |
| Appendices | Yes, if needed | Yes, if needed | Yes, if needed |
| Institutional Review Board (IRB) | Not required | Not required | Yes, work with the thesis advisor on IRB review. The program director will be the reviewer when an IRB needs a department level review. If additional input is needed, program directors will work together to review the IRB. |
Overview of Process for Completing the Thesis/Project

Topic and Question Formulation

Some students have a general idea of the topic for their Master’s thesis when beginning the graduate program. Other students develop a topic idea as a result of their coursework. We strongly encourage students to think about possible thesis topics as they progress in the program. Students will need to begin by selecting a general topic area to explore. Once students have identified a general topic of interest, clearly identify a guiding question(s) they are seeking to answer. The guiding questions will be incorporated into the thesis proposal completed in EDUC755 Preparing the Thesis/Action Research Project.

Guiding Question(s) Approval

Students will submit their thesis proposal completed in EDUC755 to their advisor for final approval. The guiding question(s) must be approved by the advisor before beginning to write the thesis. Any changes in the thesis topic or guiding question(s) must be approved by the advisor. It is essential that the thesis proposal is discussed with the advisor before beginning the research.

Academic Honesty

Bethel graduate students are expected to uphold high standards of academic honesty. The Graduate Catalog contains several definitions and examples of academic dishonesty, such as plagiarism, cheating and fabrication. Take time to read and understand these definitions, and talk to your thesis advisor if you need further clarification.

Disability-related Accommodations

Students who wish to request disability-related accommodations should ask the Office of Disability Services to provide an accommodation letter to the advisor. All accommodations should be arranged through the Office of Disability Services by calling 651.635.8759 or visiting their website at https://www.bethel.edu/disability/.

Library Research

The library research stage involves gathering research relevant to the question of interest. Students should consult their advisor early in this process to determine appropriate thesis resources. Students are expected to primarily make use of scholarly journals and publications. Some books and other resources are acceptable. It is important to take notes on the materials gathered.

Writing Help

Students must consult with their advisor during the writing process for assistance and feedback on drafts. The thesis must follow the format of the most current edition of the Publication Manual of the
American Psychological Association. The format for electronic citations can be found in the APA Style Guide to Electronic References.

The Academic Resource Center for the College of Adult and Professional Studies, Seminary, and Graduate School offers free writing support to thesis students. Many students schedule several face-to-face or online appointments with the ARC while they are writing their thesis.
Due Dates for Thesis/Project and Oral Defense

The Master’s Thesis/Project and Oral Defense must be completed by the end of the semester in order to avoid paying for another semester of credits. Ask your student success advisor to give you the dates and then work with your advisor to make sure you have successfully defended your thesis by that date.

Commencement Ceremony Date

Commencement ceremonies for Bethel’s Graduate School are held twice a year at Bethel, once in mid-December and once in late May. Some students plan their thesis/project timeline to allow them to participate in a particular commencement ceremony. Attending commencement is strongly encouraged, but is not required. Advisor and program director approval is required for graduation, so email your student success advisor if you have questions about the timeline and your ability to commence.

Extension Request

Ask your student success advisor (gs-education@bethel.edu) for the current policy on extensions.

Lane Changes

Official documentation confirming the completion of a master’s degree is necessary for a lane change in most school districts. Students must complete all degree requirements prior to the district lane change deadline. Students often want the lane change and ask for their degree to be posted in late August. It can take a maximum of 45 days to post a degree, after the program director has changed the EDUC790 grade to Satisfactory. If the registrar knows ahead of time a student needs a degree posted quickly for whatever reason (i.e. a lane change), they can expedite the process. If a district accepts an electronic transcript, upon request, the registrar can submit an electronic transcript the same day that the degree is posted. Most districts will only accept hard copies of a transcript, in which case it can take up to four days for the district to receive a transcript after it has been sent.

You will not receive a grade for your Master’s Thesis/Project until you have passed your Oral Defense and electronically submitted your thesis/project to the Bethel University Library. After the program director is alerted that your thesis has been electronically submitted, your grade for EDUC790 will be changed from Incomplete to Satisfactory, and the registrar’s office will grant the degree.

Timeline for Finishing the Thesis and Scheduling the Oral Defense

Please note the following deadlines when planning a schedule for completing the thesis/project.

Eight Weeks Before Oral Defense

- Email a full draft of the thesis/project to the advisor
  - The advisor should have received and reviewed sections of the thesis/project prior to this date
• It is not acceptable to begin submitting portions or a complete draft at this time

Three Weeks Before Oral Defense

• When the student and advisor agree that the thesis/project is near completion, a second reader for the oral defense should be selected and contacted. Students will select the second reader in consultation with their advisor. Students must have approval from their advisor before they contact a second reader and request his/her participation in the oral defense committee. Do not expect the second reader to be available on short notice.

• Talk with your thesis/project advisor and receive approval from him or her to schedule your oral defense. Some advisors may want to do the scheduling for you; just ask your advisor his/her preference.

• Find a date and time that works with all of those who need to attend your defense and then submit a request for a room using this online form (https://docs.google.com/forms/d/e/1FAIpQLScRlGQRlTyzw0mrMbPbqdzYaQVbPKOhLc7nXKi3zf6BpPKQ/viewform)

• Communicate the room location, date, and time with those who will attend the defense once you receive confirmation from scheduling-services@bethel.edu

• Thesis advisors: see Appendix C for the qualifications for second thesis readers.

Two Weeks Before Oral Defense

• With your advisor’s permission, distribute a final draft of the thesis/project to the second reader. Check with your advisor as to whether an electronic or paper document is preferred.

Have the Oral Defense

The oral defense provides students with the opportunity to demonstrate their ability to participate in a scholarly discussion of their Master’s Thesis/Project.

Logistics of the Defense. The defense is approximately one hour in length; plan on a total of two hours so you can get to the room early (if face to face) to set up and so that paperwork can be completed after the defense. Students are welcome to bring guests to the defense, as long as you clear this with your advisor in advance. The guests will be asked to leave once the committee begins deliberations.

Presentation. Specific questions will not be provided prior to the defense. However, students may ask their committee if there are any specific types of questions for which they need to prepare. Students will prepare a 15 minute presentation on their thesis/project and will make that presentation at the beginning of the defense. Please do not simply summarize the paper. In preparation, think about the following questions: What led you to select your topic? What did you find particularly interesting or surprising as you investigated your research question? How is the topic of your thesis/project relevant to your work?

Visual Representation. Alternatively, students may be asked, by their advisors, to develop a visual
representation (i.e., an infographic, mind map or flowchart) that synthesizes the main content of their thesis project (see Appendix B for further explanation and examples). The presentation and/or visual representation will serve as a springboard for subsequent discussion of the thesis/project and questions from the committee.

**Pass or Fail the Oral Defense**

When the defense is completed, meaning the advisor and second reader’s questions have been answered, the student (and any visitors) will be asked to leave the room. The Committee will then deliberate and make one of the following decisions:

a. **Passed the defense**

The student passes the defense. The thesis/project is acceptable. The Committee can either pass with no revisions needed, or pass with minor revisions needed, to be approved by the advisor before the thesis can be digital uploaded and a Satisfactory grade for EDUC790 can be entered.

b. **Passed the defense with major revisions**

The student passes the defense with reservation, indicating that major revisions are needed on the thesis/project. If the student passes with major revisions, the oral defense does not need to be repeated. Within one week of the defense the student will receive an email from the advisor that clearly stipulates the required revisions. The student is then responsible for making the changes indicated and resubmitting the thesis/project within three weeks of receiving the feedback. The student’s advisor will then notify the student of the decision on the thesis/project. The decision will either be that the thesis has passed, or it may still be returned for further changes until it passes.

c. **Failed the defense**

If the student fails the defense, it needs to be repeated at a later date and modifications are needed on the thesis/project. If the student fails, within one week of the date of the defense he/she will receive an email with a description of the changes that must be made in the thesis/project, and to the oral defense before it is acceptable. The student is then responsible for making the changes indicated and resubmitting the thesis/project to advisor and the second reader. A second oral defense must be scheduled by the student after consulting with the advisor. The same guidelines apply for the second oral as for the first defense. The oral defense may be repeated only once.

**Immediately After the Oral Defense**

The advisor will notify the program director that you have completed the thesis/project and oral defense. The program director will turn in a grade for the thesis/project after being alerted that your thesis has been electronically submitted to the Bethel Digital Library.

**Submit Your Completed Thesis/Project to the Bethel Digital Library**

Once your thesis advisor has given you final approval on your thesis, follow this process to submit it to the Bethel Digital Library:

1. Save your work and name the file with the following format:
Last name-first (and) middle initials-t or d-yyyy of defense
For example, **doe-ja-d-2017.docs** is the file name of Jane Anne Doe's thesis, which she submitted in **2017**. Be sure to include the hyphens.
We accept the following file formats - Word (.doc, .docx) or PDF (.pdf)

2. **Submit your approved thesis/dissertation** to the Library through the Theses and Dissertation submission form.

3. **Complete** four main actions on this form: First, submit the *key pieces of information* about your thesis. Next, submit the *electronic file of your thesis*. After that, select a *license* (choose how others will be able to use your work). Last, *agree to two statements* about permission to put the work online and that all the work is yours, properly cited, or used with permission.

Here is the information required on the submission form:

- First Name - Middle Initial or Middle Name (optional) - Last Name
- Email
- Program (select your Master’s program) (See Figure 1)
- Title of Paper/Project
- Year Approved
- First Advisor
- Second Advisor (optional)
- Third Advisor (optional)
- Abstract
- Keywords (4 - 5 key terms that will help people search for your thesis)

**Figure 1 - Program field:**
Once a student submits a thesis, an email will be sent to the program director of the student’s program, who will approve the electronic submission. This will alert the program director to change the student’s EDUC790 grade to Satisfactory.

Further information about the electronic dissertations can be found on the Library website at https://www.bethel.edu/library/digital-library/theses-dissertations/

Changes to theses or doctoral projects are not permitted after the materials have been submitted to the Bethel University Digital Library.

If you have any questions about uploading your thesis, contact the Digital Library Manager, Kent Gerber at kent-gerber@bethel.edu or call 651-638-6937.

Writing the Thesis

Proposal/Prospectus (Written in EDUC755)

Portions of the prospectus may be used in Chapter I and II of your thesis. Students should check with their advisor when initial writing begins to confirm which parts can be used and which will need revision.

The thesis is written in third person voice, with some exceptions as approved by the advisor.

Chapters in the Thesis

The chapters in the thesis differ slightly depending on which type of thesis you write. The first two chapters are the same in all three options. The final chapters are different depending on which one you choose. The Application thesis includes an additional chapter to explain how your original application materials are connected to the research you reviewed, and it also includes the application materials you create (in the appendices).

CHAPTER I: INTRODUCTION (all three options)

This chapter sets the context for the guiding question(s) of interest. The goal of this chapter is to present a rationale for the importance of the thesis topic and specific question. The context and rationale for the thesis question can be developed in a number of ways such as historical context, incidence data, or current societal issues and trends. It is important to include references to the literature as the context and rationale for your question as it is developed.

This chapter typically begins with more general information on the topic and moves to ending with the statement of the guiding question sought to be answered through the literature review in Chapter II. There may be more than one guiding question, or your guiding question may have sub-questions. This chapter also includes definitions of terms that are necessary for readers to be able to understand words in the particular context of your research.
CHAPTER II: LITERATURE REVIEW (all three options)

The goal of this chapter is to present and critique the literature to answer the guiding question identified in Chapter I. As the literature is read, it will be important to watch for themes that can be used to organize this chapter. It is important to consider the structure and use of transitions in this chapter. Use headings, consistent with APA, to make the organization clear to the reader.

The first paragraph of chapter II must contain an explanation of the process and parameters for the literature review search. The purpose of adding this paragraph(s) is to make the thesis stronger academically, because it better replicates published scholarship of a meta-analysis or a basic literature review.

CHAPTER III: DISCUSSION AND CONCLUSION (Literature Review option only)

Chapter III typically includes the following five sections:

1. **Summary** – This section summarizes Chapter I and II and answers the question(s) that guided the research. Typically, the summary contains citations that are repeated from Chapters I and II. It is not expected that new citations will be used in the summary.

2. **Professional Application** – This section is designed to highlight the information and applications you think are the most important for your colleagues to know based on what you have read. When writing this section, go from broad to specific by writing about how your research applies to education in the United States, and maybe globally if that fits your topic, education in Minnesota, and education in P-12 classrooms.

3. **Limitations of the Research** – This section includes both how you limited your research pool (what did you exclude from your review and why) as well as how the pool of research was limited because the research did not exist. What did you expect to find in the research that was not there?

4. **Implications for Future Research** – What research do you think needs to be done in this area given what you have read? What questions do you still have, or what new questions came up based on what you read and learned?

5. **Conclusion** – This section is usually the shortest one in this chapter. It should restate your guiding questions, and include your final comments.

CHAPTER III: APPLICATION OF THE RESEARCH (Application Emphasis only)

Typically, this chapter will describe:

1. Evidence-based rationale showing connections between the literature review and the application project
2. Explanation of the project in details, including its purpose
3. Details about the audience: who the materials are being created for, who will use it, and how buy-in will be sought from others who may want to use the materials
4. Resources needed: people, costs, and time
5. Sustainability: how might this project be implemented in a way that will be lasting

CHAPTER III: METHOD (Action Research Project only)

The purpose of this chapter is to explain the methodology of the original research. The specific format of this chapter will be guided by the type of action research project implemented. Typically, this chapter will describe:

1. the type of project undertaken (quantitative or qualitative)
2. your rationale for this choice
3. the: a) setting, b) participants, and c) measures
4. the procedures you followed
5. a detailed description of the data analysis plan

CHAPTER IV: DISCUSSION AND CONCLUSION (Application Emphasis only)

Write the same sections as Chapter III in the Literature Review option.

CHAPTER IV: RESULTS (Action Research Project only)

This chapter will provide a description of the results based upon the data analysis plan and a thorough discussion of their implications. The discussion should be tightly tied to the research question(s). This chapter can references figures, tables, and graphs to describe the data.

CHAPTER V: DISCUSSION AND CONCLUSION (Action Research Project only)

Write the same sections as Chapter III in the Literature Review option.

Appendices

In the Literature Review, include figures, tables and graphs. In the Application Emphasis, include examples of application materials that were developed. This might include curriculum, teacher in-service programs, or system delivery models. In the Action Research Project, include figures, tables, and graphs.

Summary of the Required Chapters

Here is a summary of the required chapters in all three options:

Literature Review: Chapter I, Chapter II, Chapter III
### Format of the Thesis/Project

Write your thesis/project in the current version of APA. Follow these formatting guidelines:

<table>
<thead>
<tr>
<th>Font and Size</th>
<th>Double-space the document, use 12-point font size, and use either Times New Roman or Calibri.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margins</td>
<td>Use a 1 inch margin on the top, bottom, left and right sides of the document.</td>
</tr>
<tr>
<td>Page numbers</td>
<td>Use Arabic numerals.</td>
</tr>
<tr>
<td></td>
<td>Start page 1 on the title page.</td>
</tr>
<tr>
<td></td>
<td>Insert page numbers in the upper right corner 1 inch from the top and 1 inch from the side.</td>
</tr>
<tr>
<td></td>
<td>Do not include a Running Head.</td>
</tr>
<tr>
<td>Keywords</td>
<td>In the first paragraph of Chapter II, list 4 or 5 key words that will help readers search for your thesis in the Bethel Digital Library.</td>
</tr>
<tr>
<td>Ordering of pages</td>
<td>Start each chapter on a new page.</td>
</tr>
<tr>
<td>Title Page</td>
<td>Write the title page in all CAPITAL LETTERS.</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>This is an optional page.</td>
</tr>
<tr>
<td>Abstract</td>
<td>This should be 100-120 words and written in the appropriate style.</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>See the sample in this handbook.</td>
</tr>
<tr>
<td>List of Tables</td>
<td>This page is only required if your document contains tables.</td>
</tr>
<tr>
<td>References</td>
<td>Make sure the in-text citations cited in the paper match those listed in the References.</td>
</tr>
<tr>
<td></td>
<td>List all references in APA.</td>
</tr>
<tr>
<td>Printing</td>
<td>Set up the document to print single-sided, not double-sided.</td>
</tr>
<tr>
<td>Typos</td>
<td>Spell-check your document before each time you send a draft to your advisor. In addition to spell-check, critically read your document to eliminate all grammatical and mechanical typos.</td>
</tr>
</tbody>
</table>
In addition to the responsibilities students have to abide by standards of academic integrity, students are also entitled to protection of their intellectual property rights.

1. Work submitted in Bethel University classes is to be used solely for educational purposes within the context of the course in which the student is enrolled.
2. Any other use of student work must credit the student as the author of the work and must be authorized by the student. (If a student seeks to publish research involving human subjects, s/he must have secured the appropriate review/approval from Bethel’s Institutional Review Board prior to collection and analysis of data.)
3. Students have the right and responsibility to redact any sensitive, personally-identifiable information (e.g., names of businesses cited in case studies, demographic information related to research subjects, etc.) prior to releasing their work for applications outside of the classroom.
4. Although students may choose to co-author with a faculty member, students own their research and any other materials they design independently.
5. Students are encouraged to copyright written materials when releasing them outside of the classroom. Students who complete theses, dissertations and capstone projects acknowledge, by completing the project, that they are aware that a copy of the work will be retained in the Bethel University Library.
Samples
TITLE DOUBLE-SPACED HERE

A MASTER’S THESIS (or) PROJECT

SUBMITTED TO THE FACULTY

OF BETHEL UNIVERSITY

BY

CHRIS A. STUDENT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF ARTS

MAY 2018
Acknowledgements

FIRST LETTER CAPITALIZED

THIS PAGE IS OPTIONAL
Abstract

FIRST LETTER IS CAPITALIZED

100-120 WORD SUMMARY OF YOUR PAPER

PARAGRAPH IS NOT INDENTED
# Table of Contents

Acknowledgements .......................................................... 3  
Abstract ........................................................................ 4  
Table of Contents ............................................................ 5  
List of Tables ................................................................. 6  
Chapter I: Introduction .......................................................... 7  
  Student Development and College Student Personnel .................. 7  
  Student Development and Learning Styles .................................. 8  
  Definition of Terms .......................................................... 10  
  Historical Approach to Learning Styles ................................... 12  
Chapter II: Literature Review .................................................. 18  
  Overview of Literature Reviewed ........................................... 18  
  Matching Learning and Teaching Styles Based on Students’ Locus of Control .............................................. 20  
    Summary of Locus of Control Studies .................................... 27  
  Matching Learning and Teaching Styles Based on Students’ Field Dependence-Independence ...................................... 30  
    Summary of Field Dependence-Independence Studies ............. 38  
Chapter III: Discussion and Conclusion ..................................... 56  
  Summary of Literature ....................................................... 56  
  Professional Applications ................................................... 57  
  Limitations of the Research ................................................ 58  
  Implications for Future Research .......................................... 59  
  Implications for Professional Application ................................. 61  
  Conclusion ...................................................................... 64  
References ........................................................................ 67  
Appendix A ...................................................................... 69
List of Tables

Table

1  Locus of Control and Learning Styles  16
2  Field Dependence-Independence and Learning Styles  31
3  Various Factors and Learning Styles  42
“Boys will be boys!” is a saying many teachers use to dismiss some of the behaviors that they notice boys exhibiting in the classroom. Five years into the teaching profession, I can attest to countless cases of boys who were always in motion, zoning out, and submitting rushed sloppy work. Austin was a typical six year-old in my class who wasn’t exactly thrilled to be starting first grade. He reluctantly walked through my door with a big scowl on his face on open house night, which immediately told me that he may have had a less than ideal kindergarten experience. Or maybe he was realizing that his summer days of running and playing were about to be exchanged for sitting still and listening carefully. He was a nice boy and well-liked by his peers, but I quickly realized that school was not going to be easy for him. He was often staring off into space and seemed to be in his own world. He would usually miss directions but didn’t seem to mind because he would complete his work so quickly whether he knew what to do or not. I even asked his parents at conferences if he had trouble with ear infections or if they experienced similar problems as I did in the classroom with Austin’s inability to hear what I was saying to him. His body was constantly on the move, and it was no surprise that his favorite parts of the school day were physical education, recess, and lunch. His favorite topic for sharing was always Batman. His inattention during the school day and low reading performance was a concern, however. Austin was not the only boy in my class with similar characteristics. Even as early as first grade, Austin and many of his male peers have become discouraged with school and reading and may never catch
CHAPTER II: LITERATURE REVIEW

Factors Contributing to the Gender Gap

To locate the literature for this thesis, searches of Educator’s Reference Complete, Expanded Academic ASAP, Education Journals, ERIC, JSTOR Arts & Sciences VI Archive Collection, ECO, Academic Search Complete, and EBSCO MegaFILE were conducted for publications from 1980 to 2011. This list was narrowed by only reviewing published empirical studies articles from peer-reviewed journals that focused on math, literacy and professional development in math content area literacy found in journals that addressed the guiding questions. The key words that were used in these searches were “content literacy strategies math,” “math reading comprehension,” “professional development math literacy,” “professional development content literacy,” and “math literacy.” The structure of this chapter is to review the literature on math literacy in three sections in this order: Math and Reading; Math Content Literacy; and Content Literacy and Professional Development.

Physical Development of Young Boys

Many factors are contributing to the gender achievement gap in reading. The physical development of boys is different than girls pertaining to vision, hearing, and motor abilities. Advances in neuroscience now show us that brain function in boys is different than in girls. Other factors include the following: boys' ability to attend to instruction at school, biological and environmental differences between boys and girls, social and emotional development of boys, and boys’ emotions and attitudes about reading.

Vision.
One reason for the difference in reading ability could be attributed to the neurological differences in the eyes of boys and girls. Boys’ eyes register differently than girls’ eyes. There is a variation in the thickness and layering of the retina. Visual information is sent to the brain through different populations of ganglion cells. Girls rely on P ganglion cells which are sensitive to color and shape and also connect color variety and other sensory activity to the upper brain functioning (Gurian, 2006). Girls are more sensitive to fine sensory activity and color variation and therefore often use words that describe color and other fine sensories (King & Gurian, 2006). Boys rely on M ganglion cells which have a receptive field that is sensitive to depth, indifferent to color, and rapidly adapt to stimulus (Gurian, 2006). Since these M cells detect movement, boys rely on movement and pictures when they write. Boys are better at spatial activity and tune into graphic clues more quickly than girls (King & Gurian, 2006). Color is registered differently for boys and girls. Girls tune into color such as red, orange, beige, green, and pink while boys tune into the colors black, green, blue, and silver (Zambo & Bronzo, 2007).
References


Appendix A

Example of How to Write the Keywords Paragraph in Chapter II

In searching for relevant studies, we focused on 1990-2010 and part of 2011 and used several databases for English and German psychological literature (e.g., PsycINFO, PSYNDEx). For the purpose of online search, we created search phrases by combining the terms reading, comprehension, reading competence, reading amount, reading fluency, and reading behavior with each of the following terms: motivation, interest, self-concept, self-efficacy, attitude, and goal orientation (e.g., “reading and interest”). Because past research focused on young children and school students, we did not include studies with adults or university students. In fact, only very few studies involving adults were identified (He, 2008; Kolic-Vehovec, Roncevic, & Bajsanski, 2008; Schutte & Malouff, 2007).
Appendix B

Possible Presentation Option for Oral Defense

Develop a visual representation to show how you see the main themes of your paper relating to each other. Think of it as an info- graphic or mind map that shows connections between chunks of information. Two examples are provided for your consideration. Use these examples to help you think about how you might represent your own learning from the thesis process. This part is totally open-ended and an opportunity to capture your learning in a unique way. Your image may be presented electronically or in physical form. The two examples are used with permission.

Example 1

Example 2
Appendix C

Second Thesis Readers

When the advisor and student agree that the thesis/project is near completion, a second reader for the oral defense should be selected and contacted. Students will select the second reader in consultation with their advisor, and students must have approval from their advisor before they contact a second reader and request his/her participation in the oral defense. Either the thesis advisor or the second thesis reader must have expertise related to the subject matter of the thesis. The following are the qualifications and time expectations of the second reader.

Qualifications

The second reader:
- Must be approved by the thesis advisor
- Must have a master’s degree
- Must have written a thesis
- Be a current or former educator
  - Does not have to be a Bethel University employee
  - Can be a colleague of the thesis student but not a peer; preference should be to school administrators (e.g. principal, assistant principal, curriculum director, team lead, and so forth)
- Must have expertise related to the subject matter of the thesis if the thesis advisor does not have that expertise

Time as Second Reader

Second readers will be paid for up to 10 hours of work, including time spent at the oral defense. Note that while 10 hours is the maximum, between 5-7 are the typical number of hours spent by second readers.