

THE MASTER OF EDUCATION DEGREE UNION UNIVERSITY

Guidelines for Preparing the Creative Research Project

The *Creative Research Project* is designed to assist the teacher in identifying an educational problem of relevance and applying research toward its solution. In the project, graduate students working in small groups of two to four (or individually) will synthesize existing research to suggest strategies or approaches for dealing with a problem. The end product is a written report consisting of a clear and concise presentation of the research similar to a research article written for publication. (Students and the research advisor may want to submit their "article" for publication. In such cases the research advisor would be designated as the senior author for the article.) Collaboration among two or three action researchers is ideal, but effective only when the project is truly participatory in formulation, collection and analysis, and unified in reporting the results. The project utilizes action research to explore an education problem in the graduate student's school or other educational environment. The results of the research project may or may not be generalizable to other populations. Students are encouraged to choose relevant problems that are impacting the educational community, so that the study will contribute to the goal of educational excellence.

Action Research Defined

Action research is to be differentiated from more traditional scientific research. It is conducted by educators who want to improve their own educational community. Sagor (1992) explained that scientific researchers look at what others are doing or should be doing while action researchers look at what they themselves are or should be doing. Action researchers in education focus on three related stages of *action*:

1. Initiating action, such as adopting a text or choosing an alternative assessment strategy
2. Monitoring and adjusting action, such as seeing how a pilot project is proceeding, assessing the early progress of a new program or improving current practice
3. Evaluating action, such as preparing a final report on a completed project

Sagor asserted:

. . . that when we inquire for the purpose of initiating action, we are usually seeking information to help us understand and solve a problem (might be called 'research *for* action'). When we actually monitor our work in order to improve our performance, we are engaging in 'research *in* action.' Finally, our

efforts to evaluate work that

has been concluded might be called 'research of action'. (1992, p. 8)

Research is defined here as any effort toward disciplined inquiry (Sagor, 1992). Action research can involve a wide array of methods derived from both the quantitative and qualitative domains. The Union M.Ed. program focuses on the study of phenomena that investigators want to better understand, requiring that they employ systematic processes to acquire valid and reliable data concerning those phenomena. The phenomena chosen for study must concern the teaching/learning process, and must also be within the M.Ed. student's scope of influence.

SEQUENCE OF RESEARCH EXPERIENCES AND COURSEWORK

EDU 643 – Outcome: Pilot for Proposal and send manuscript to the school district for approval to do research. Research may not begin until this permission is received.

EDU 644 – Outcome: Meet regularly with research group and research advisor to complete literature review for the proposal and to begin collecting data. A grade will be issued at the end of the Fall Semester.

EDU 645 – Outcome: Meet regularly with research group and research advisor to complete research and begin written work on the final written project. A grade will be issued at the end of the Spring Semester.

EDU 645 – Outcome: Meet regularly with research group and research advisor to complete written work on the final written project and oral presentation. A grade will be issued at the end of the Summer Semester.

M.Ed. students will complete a sequence of experiences designed to prepare them to complete the *Creative Research Project*. During the first semester of the cohort year, students will be introduced to educational research, identify a topic, formulate a problem and write a pilot as part of a "creative research proposal." Each M.Ed. cohort student will be assigned to a *Research Group* (group of 2-4) and a *Research Advisor* at the end of summer school. The meetings of research groups will begin the first week of the fall semester and continue on a regular basis throughout the cohort year, culminating with a bound research project and the Master's Forum in July of the second summer. Most meetings will need to occur late on a weekday in order not to conflict with Saturday classes. Research group meetings are meant to be a

logical extension of Education 643-

Methods and Design for Classroom Research. Education 644-Creative Research Proposal is the context for these meetings with the research advisor during the fall semester. Students and advisors will maintain regular contact and advisors will guide the completion of the literature review and guide research as it progresses in the fall and spring. Education 645-Creative Research Project is formally offered in February - July of the second summer and serves as the context for the completion and presentation of the project.

It is the obligation of graduate cohort students to make progress on the creative research proposal and project according to the deadlines established. Students and advisors should meet regularly throughout the semester. The initial meeting in the fall, called by the advisor, will be with the total research group. If a student consistently does not attend a planned meeting, the grade will be impacted. At this time the group will pick a regular advising time for writing the literature review and completing the *Proposal*. The research experience continues in the same way in the spring and second summer semesters. Advisor-advisee meetings are required.

The Creative Research Project *in its final approved form (one clean copy per project on 24# cotton weight paper)* must be completed and turned in to the Office of Graduate Studies by The Master's Forum in July. Binding cost will be determined on a yearly basis (@ \$15 per copy). Students who desire a bound copy of their own will need to submit an extra copy on *24# cotton weight paper* and pay an extra binding fee for a personal copy of their Creative Research Project. (See Binding Fees for specific instructions.)

According to Sagor (1992), reporting the results of your studying as many venues as possible is an important piece of action research. The team should find many opportunities to express their findings and the importance to the educational community at large. *The Master's Forum* provides an opportunity for such a public presentation.

Organization of the Text

The text of the *Creative Research Project* is divided into sections and subsections and must be written according to style guidelines provided by the Office of Graduate Studies in Education. Questions concerning style not addressed by the Graduate Office should be referred to *The Publication Manual of the American Psychological Association* (5th Edition). A brief description of the contents of each section follows:

Title of Project
In Title case, centered

Introduction
No introductory paragraph here

Statement of the Research Problem

This section includes a clear and concise statement of the problem to be addressed in the project and a rationale for undertaking its study. It is essential that writers state their research problem clearly and succinctly.

Rationale of the Study

The rationale explains why the problem has been chosen. References in this section are limited, but may include summary reports or historical references which document the significance of the problem or help to develop the framework for the rationale.

Research Questions

In this section you should state 1-3 specific research questions that will provide the framework for the project. In deciding upon research questions or hypotheses (or both), it is important that the investigator ask, "What is it I really want to know from this study?" "What are the questions I most want answered?" The researcher needs to think about what would be required to answer each question. If there is little possibility of observing and measuring the variable(s) needed to answer each question or collecting the necessary information, the question should not be stated.

Literature Review

This section is a review of related literature reporting current research relevant to the research questions to be answered. The review of the literature lays the foundation for the *Creative Research Project*. Researchers use this section to support their ideas and assertions with the research and scholarly works of others. A comprehensive review of relevant research establishes the significance of the project. This section includes a comprehensive overview of the literature related to the problem and research questions or hypotheses. A rough guideline is that the literature review should be approximately one-third of the total length of the project. The *Proposal* (due December) should include a minimum of 20 to 30 sources and be

approximately 11 to 12 pages in length. Historical studies that others base their research upon can be included if they are foundational to the topic. The completed literature review will be submitted to your advisor before the end of the Fall Term.

Most sources should be primary. Sources can be downloaded from library online data bases. Use of other web sites must be approved by your advisor. As a general guideline, at least half the sources must come from the last five years.

Delimitations of the Study

Delimitations of the study should establish the limits or parameters that the investigator chooses and controls. It is vital that the researcher establishes what to include and not to include in the study. Examples are the populations to be studied and the variables of interest. **Control of researcher bias should also be addressed.**

Research Methods

This section provides a clear description of the project design and the methodology to be used. All writing in this section should be scholarly and original. This section includes. . .

Description of Research Subjects

The investigator(s) should describe the subjects examined or tested in the study. It should include such descriptors as who the subjects were, from where the subjects were selected, the subjects' mean age, grade in school, gender, etc.

Procedures

Research procedures are clearly and concisely explained. The structure of the project and the kinds of research procedures to be followed are outlined. This would include the kinds of quantitative and qualitative instruments you utilize along with timeframes.

Time Line (Pilot and Proposal only, example follows)

In the *Creative Research Pilot & Proposal* you will set out a plan of action for completing the *Creative Research Project*. A well designed Time Line will guide the group and keep you involved throughout the program. It will also facilitate communication with your research advisor.

Instrumentation

The main concern here is the careful selection of instruments appropriate for the particular research problem. Sometimes this selection is made from commercially published instruments; at other times researchers must devise instruments of their own. Both the validity and reliability of the results from the

instruments must be checked prior to using the instruments in the research project and reported in this section. *Note:* The source of all copyrighted materials must be identified and cited in the reference list.

Treatment of Data

The instruments described above will be used to assess the data gathered. The researchers must describe clearly how each instrument will be used to assess the data and relate that to how the questions will be answered.

Findings

This section reports and summarizes the findings of the study. It is here that the author(s) clearly communicates the findings of the project as they relate to specific research questions or hypotheses. The research questions or hypotheses should be used to organize the findings of the study.

Conclusions

This section of the project pertains to the conclusions drawn from the investigation. The investigator(s) presents reasons for his/her findings. Conclusions regarding the data gathered should be explained in great detail and discussed.

Discussion

(Replaces Use of Results in the final paper)

Since you are reflecting on the whole project, the discussion contains the most analytical, original thought. The research conducted in the Master of Education program is intended to have an immediate impact on specific problems or concerns in educational practice. It is appropriate to refer to previously cited literature that supports your study or suggests future actions. Thus, it is vital that a discussion of the implications be made relative to the importance of the findings. It is appropriate to refer to previously cited literature that supports your study or suggests future actions. In essence, this section is the "So what?" response of the study. Forming assumptions and speculating about the impact of the findings of the research project are appropriate for this section. Suggestions for change relative to educational practice may be recommended. Strategies for meeting the needs of the students in schools, for example, may be formulated. The implications may also serve to reaffirm current practice if the research supports findings and strategies currently in place. This is the point at which the researcher(s) should demonstrate the practical applications and anticipated outcomes of the research findings. It is here that great detail is made of the results of the project. With action research, the intention of the researcher(s) is to provide other educators specific, practical outcomes so that they can implement the project's findings. These outcomes may refer to implications of the project related to educational policies, practices and/or governance. They may also refer to recommendations for future projects/research and suggestions of strategies for implementing the project at different grade levels with distinct groups or in divergent settings.

TAKE NOTE OF THESE CLUES TO SUCCESS

Communication Often with Everyone

In a collaborative Action Research Project that extends over time, the work of each group member is very important. Members must work to their strength, strive to do their best work, and develop a positive working relationship among group members. Learn to rely on one another. Close communication with the research adviser is vitally important. Without these elements, The CRP research process and producing a final product that you are proud of will be more difficult.

Obtain Necessary Tools

Union's CRP Guidelines provide the specifications you are to follow for the Creative Research Process (EDU 643, 644, 645). Become familiar with this guidebook. It has been written for your convenience. From the first written project you do, you are expected to follow these guidelines. When an issue is not addressed by *Union's CRP Guidelines* follow the requirements of the *Publication Manual of the American Psychological Association* (5th Edition).

Please take time to become acquainted with the material within the *CRP Guidelines* and important pages on *APA* manual *before* you start writing. This diligence will save time and frustration throughout the research process.

Avoid Plagiarism

Presenting the work of another person's work, ideas or writing as you own is plagiarism. This "includes printed or electronic copies of computer programs, musical compositions, drawings, paintings, oral or written presentations (e.g., papers, essays, articles, chapters), statistical data, tables, or figures (The Learning Centre, UNBC, "Plagiarism"). In short, if you use any information that can be considered the intellectual property of another without acknowledging the original source properly, then you are engaging in theft and deception, which is plagiarism, a form of academic dishonesty. To maintain academic integrity, avoid plagiarism. For further information, see: <http://www.collegeboard.com/article/0,3868,2-10-0-10314,00.html>

PREPARATION OF THE MANUSCRIPT

Style Requirements

This document is the official guide for preparing the *Creative Research Project*. It is based upon the *Publication Manual of the American Psychological Association* (5th Edition). Issues not referred to in this guide are addressed in the APA Manual. M.Ed. students should refer to the APA Manual for additional information on format. If a conflict arises between this Guide and APA, follow this Guide.

Font/Type

The final manuscript must be submitted with laser quality print. Dot matrix is not acceptable. Acceptable print size is described in the *APA Publication Manual*. A print size that is equivalent to the print used in this document (12 point) is acceptable. Block fonts are to be avoided. A standard typeface such as Times New Roman or Courier are recommended

Margins and Spacing

For binding purposes, *left margins must be one and one-half inches*; all other margins are one inch. The right margin should be uneven, i.e., do not justify. Indent the first line of every paragraph five to seven spaces or use the word processing tab key for consistency. **Double spacing must be maintained throughout the document**, except in the case of multiple line headings used in the text and tables and within individual reference citations in the reference list, which are single-spaced.

Length

The Creative Research Project should be 25-35 pages in length, excluding the references and appendices. Extensive appendices are not necessary. Common items in the appendix include a sample questionnaire or other survey instruments. See suggestions in *APA 5th Edition* on pages 205-206 for further information.

Binding Instructions and Fees

Each group of research students should submit one copy of the project to the Office of Graduate Studies in Education for binding. The final manuscript must be submitted on 8.5" x 11" 24# cotton weight paper. After final approval by the Director of MED Program, the manuscript will be sent by the Union Library for binding. *This copy of the project will be retained in the Summar Library. The cost of the Library copy is expected to be about \$15.00.*

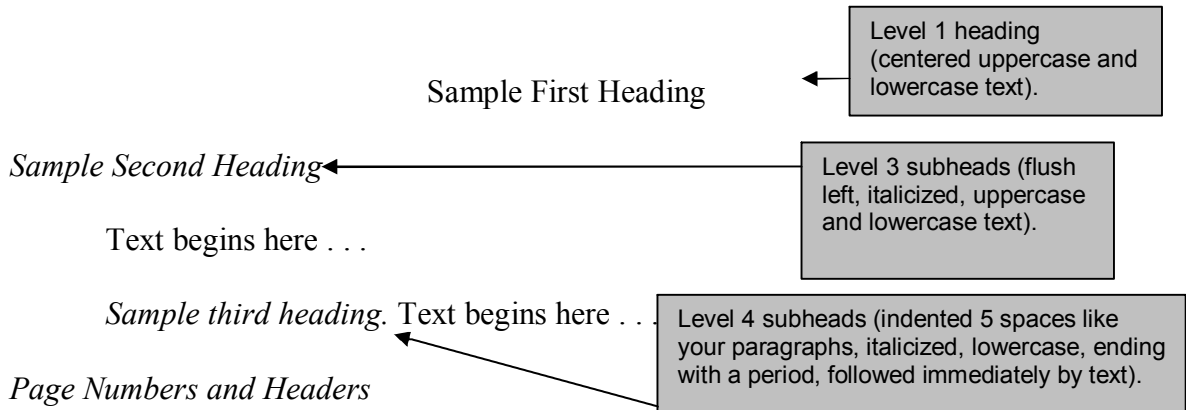
In addition, each research group must submit 2 CDs of the complete project, including the approval page with the advisor's signature. These CDs will be stored in the Graduate Education Offices on each campus.

For each personal bound copy, the student must submit a completed copy of the project on white bond paper. Include the final approval page with your advisor's signature. Each personal bound copy costs about \$15.00.

UNION UNIVERSITY – STYLE ELEMENTS

Headings

For most work in the Creative Research Project, three levels of headings are sufficient.



Page Numbers and Headers

The numbering for each page will be in the *upper right hand corner one inch down from the top of the page*. Use the auto set feature of Microsoft Word in the heading and lower the number by one line to reach an inch from the top. Number, using Arabic numerals must be consecutive and begin with the acknowledgments page and end with the appendices. No numbering is required for the permission to use, title page or signature page. **Do not use running headers at the top of each page.**

References

Examples of the most commonly used references are included in the following pages. The official version of APA StyleWriter 5.0 is available on the computers in all labs. Learning to enter references in that software program saves time and many corrections.

A great site for reference construction:

<http://www.liu.edu/CWIS/CWP/library/workshop/citapa.htm>

Tables and Figures

Generally, tables are used to display numbers, and figures are used to display graphics. Tables are more likely to be used in your *Creative Research Project*.

http://www.du.edu/psychology/undergraduate/APA_Mini-manual.pdf

The tables below are reproduced from the APA manual (pp.149-154). Number tables with Arabic numbers. Note spacing (all double), italics, capitalization (in title,

capitalize all major words, but for headings and captions, only the first word and proper nouns), and use of horizontal lines.

Table Example 1.

Table X

Error Rates of Older and Younger Groups

Level of difficulty	Mean error rate		Standard deviation		Sample size	
	Younger	Older	Younger	Older	Younger	Older
Low	.05	.14	.06	.15	12	18
Moderate	.05	.17	.07	.15	15	12
High	.11	.25	.10	.21	16	14



FIGURES

- Label with letters and numbers large enough to be clear when reduced for the journal.
- Put the legend within the dimensions of the graph.
- Use symbols and bar codes that make the groups or conditions easy to differentiate.
- Do NOT type in the actual values on the graph. Values on the ordinal should allow the reader to interpret the level of scores.
- Do NOT put the figure caption on the same page as the figure. Type all captions on a separate page labeled Figure Caption.
- Do NOT create three-dimensional figures, and do not use line drawings for discontinuous groups or conditions--use bar diagrams.

See pages 180-193 for examples

t-tests:

$$t(60) = 1.99, p < .05.$$

The word **data** is followed by a plural verb

CORRECT: The data **are** . . . The data **were** analyzed . . .

MISUSE: The data is . . . The data reveals . . .

Quotations

Quotations are appropriate to support your points throughout the research. Short direct quotations of 40 words or less should be incorporated into the text and enclosed by quotation marks. The reference should follow in parenthesis and must include a page number. The reference is followed by the period. When citing electronic sources that do not provide page numbers, use either the paragraph symbol or the abbreviation *para*. Refer to *APA* page 120.

For example:

Short Quote Example.

. . . There is a “rich get richer and the poor get poorer phenomenon that has early and efficient acquisition of reading skills yielding faster rates of growth not only in reading achievement but other cognitive skills as well” (Cunningham & Stanovich, 2003, p. 35). If the quotation occurs mid-sentence, then end the passage with quotation marks, cite the source in parentheses immediately after the quotation marks, and continue the sentence. Refer to *APA* page 120.

Block Quotes

Quotations of **more than 40 words** must follow *APA* instructions for block quotes on page 118. The block quote should be *double spaced*.

Sagor asserted:

. . . that when we inquire for the purpose of initiating action, we are usually seeking information to help us understand and solve a problem (might be called ‘research *for* action’). When we actually monitor our work in order to improve our performance, we are engaging in ‘research *in* action.’ Finally, our efforts to evaluate work that has been concluded might be called ‘research of action’. (1992, p.8)

Ellipsis or Spaced Periods

When omitting material from the original source, use three spaced periods (*ellipsis points*) within a sentence and use four points between two sentences. The ellipsis includes spaces between periods. For example, .space.space.space . . .

Seriation, Lists

APA Manual 115, 116, 292

Insert a divider here.

EDU 644

FALL 2009

CREATIVE RESEARCH PROPOSAL

**Organization of the Creative
Research Proposal
(EDU 644)**

Approval of Pilot (by the end of 643)

*Separate Page - NOT included in the page numbering.
Use the form provided by Union University Graduate Office.
Must be signed by your professor and the Director of the MED program before
the paper will be submitted to the school district for approval.*

Title Page

*Separate Page - NOT included in the page numbering.
Double-spaced and Centered Horizontally & Vertically
The words "title page" do NOT appear on the page.*

ABSTRACT

*Separate Page. Not numbered in this draft. It gives the essence of
the research study for those who review it for approval. In the beginning
it should discuss the research subjects and procedures.
This will be developed in the final project to include your findings.*

The Text

Specific organization of the text follows.

Title of the Project
In title case, centered

Introduction

Statement of the Research Problem

Rationale of the Study

Research Questions

Literature Review

*Not present in the Pilot, will be added during EDU 644 in the Fall.
25 to 35 sources by the end of the December grading period.*

Delimitations of the Study

Research Methods

Research Subjects

Procedures

Time Line

Instrumentation

Treatment of Data

Use of the Results

*This appears only in the Proposal.
It will be replaced by the Discussion in the final project.*

*Predict how the results of your study will be used by others in the
profession to advance educational practice.*

REFERENCES

Separate Pages – ARE included in the page numbering.

APPENDICES

Cover page

Appendix A

Title

- Separate Pages – ARE included in the page numbering.
- Fonts and margins must be consistent throughout the documents included.
- Include ideas of the instruments to be used in collecting data.
- All permission to do research forms, as required by your school district, must be included. MCS no longer requires prior permission to do Action Research in your classroom as long as the teacher follows the Pilot as approved by the University.

Sample Time Line

Use until final revision in Project.

Time Line

September

Group begins meeting with your advisor.

and

Meet with Parents to Discuss Research Project

Gain Parent Permission

September – November
Begin to Gather Data

November – December

Complete Literature Review, Submit to advisor

February – May

Gather final data and begin data analysis.
Review SPSS by Appointment
Write rough draft of findings.
Begin to consider conclusions.

June – July

Complete refined findings, conclusions and
begin discussion.
Complete the written Creative Research Project
with advisor.
Master's Forum

Sample Use of Results
(For the *Pilot/Proposal* only)

Use of Results

The researchers will analyze the findings of the study in order to make recommendations for the implementation of multiple intelligence methods in the future. If the correlation between student achievement and student attitude toward leaning is positive, the teachers will share their findings with the local school faculty.

**CHECKLIST FOR CREATIVE RESEARCH PROPOSAL
December 2009**

Format

Margins 1 1/2 left margin, 1" all others
 Page number – upper right hand corner
 Font – 12 point block style
 Lazer quality print
 Double spacing throughout; exceptions: block quotes and references
 References, those used in paper present in Reference list, single spaced within
 and double between references
 Appendix Cover Sheet
 Appendix by page; margins, font, page numbers
 Edited for grammar, punctuation and content

Sequence of Final Creative Research Project

Approval for Creative Research Proposal
 Abstract
 Introduction
 Statement of the Research Problem
 Rationale of the Study
 Research Questions
 Literature Review (25 to 35 sources)
 Delimitations of the Study
 Research Methods
 Description of Research Subjects
 Procedures
 Time Line
 Instrumentation
 Treatment of Data
 Use of Results
 REFERENCES (sources used in the paper to date)
 APPENDICES)
 Appendix A
 Title
 Correct format, margins, fonts, page numbers
 Permission to Do Research Forms for Districts' (adviser get this
 information)
 Parents' permission form personalized to this study – all districts

Researchers have checked my paper and these elements are present in this order
 Adviser has checked this paper and these elements are present in this order

Approved by the Advisor _____

APPROVAL
FOR
CREATIVE RESEARCH PROPOSAL

This form is designed to be completed by an individual M.Ed. student or collaborative team of M.Ed. students seeking approval of their research proposal. This form should be completed and attached to the front of the completed research proposal and submitted to their research advisor. The approval signature must be obtained prior to the gathering of research data. This approval precedes the submission of the Creative Research Project.

Name of Student(s): _____

Research Advisor: _____

Title of Creative Research

Proposal: _____

Brief Description of the Research Topic:

Approved by:

Research Advisor

Date: December 2009

Approved by:

M.Ed. Program Director

Date: December 2009

NOTES FOR LITERATURE REVIEW
EDU 644
What is a Literature Review?

A literature review is a report of what has been published on a topic by accredited scholars and researchers. The review is designed to identify related research, which helps set an individual problem or issue in a conceptual and theoretical context. It is part of the introduction to an essay, research report, thesis or dissertation. In writing the literature review, your purpose is to express to the reader what knowledge, ideas, and controversies have been established on a topic in a logical format (which includes relevant theories and what the strengths and weaknesses of these arguments may be). As a piece of writing, the literature review is a piece of synthesized prose, which is defined by a guiding idea or problem. It, then, is not just a descriptive list of the materials available or a set of summaries.

Besides enlarging your knowledge about a topic, writing a literature review allows you to demonstrate skills in two areas:

1. Information seeking – scanning literature efficiently, using manual or computerized materials, and identifying a set of useful articles or books
2. Critical appraisal – applying the principals of analysis, in order to identify unbiased and valid studies.

A literature review must do the following:

1. be organized around your career and leadership goals (the thesis or research questions).
2. synthesize results into a summary of what is known and not know.
3. identify appropriate areas of all relevant theories (various viewpoints) in the literature.
4. lack the writer's personal opinion.
5. identify areas of controversy in the literature.
6. formulate questions that need further research.

Ask yourself questions like these:

- What is **the specific thesis, problem, or research question** that my literature review helps to define?
- What **type** of literature review am I conducting? Am I looking at issues of theory? methodology? policy? quantitative research (e.g. on the effectiveness of a new procedure)? qualitative research (e.g. studies)?
- What is the **scope** of my literature review? What types of publications am I using (e.g. journals, books, government documents, popular media)? What discipline am I working in (e.g. nursing, psychology, sociology, medicine)?
- How good was my **information seeking**? Has my search been wide enough to ensure I've found all the relevant material? Has it been narrow enough to

exclude irrelevant material? Is the number of sources I've used appropriate for the length of my paper?

- Have I **critically analyzed** the literature I use? Do I follow through a set of concepts and questions, comparing items to each other in the ways they deal with them? Instead of just listing and summarizing items, do I assess them, discussing strengths and weaknesses?
- Have I cited and discussed studies **contrary** to my perspective?
- Will the reader find my literature review **relevant, appropriate, and useful**?

Ask yourself questions like these about each book or article you include:

- Has the author formulated a problem/issue?
- Is it clearly defined? Is its significance (scope, severity, relevance) clearly established?
- Could the problem have been approached more effectively from another perspective?
- What is the author's research orientation (e.g. interpretive, critical science, combination)?
- What is the author's theoretical framework (e.g. psychological, developmental, feminist)?
- Has the author evaluated the literature relevant to the problem/issue? Does the author include literature taking positions she or he does not agree with?
- In a research study, how good are the basic components of the study design (e.g. population, intervention, outcome)? How accurate and valid are the measurements? Is the analysis of the data accurate and relevant to the research question? Are the conclusions validly based upon the data and analysis?
- How does the author structure the argument? Can you "deconstruct" the flow of the argument to see whether or where it breaks down logically (e.g. in establishing cause-effect relationships)?
- In what ways does this book or article contribute to our understanding of the problem under study, and in what ways is it useful for practice? What are the strengths and limitations?
- How does this book or article relate to the specific thesis or question I am developing?

Final Notes:

A literature review is a piece of **discursive prose**, not a list describing or summarizing one piece of literature after another. It's usually a bad sign to see every paragraph beginning with the name of a researcher. Instead, organize the literature review into sections that present themes or identify trends, including relevant theory. You are not trying to list all the material published, but to synthesize and evaluate it according to the guiding concept of your thesis or research question.

Tools for Preparing Literature Reviews

Web Search Engines:**For a Quick Take On a Topic**

Well-known Web search engines rarely find much of the research literature on topics in the social sciences. *Alta Vista*, *Find*, *Google*, *HotBot*, *Metacrawler* and *Yahoo*, will find you thousands of sources on education, human resource development and other matters, but most of it will be from magazines, newspapers, and various organizations' own Web pages, rather than from research journals and dissertations, which are the main sources of research literature. This is because most of the journals and dissertations are not yet available publicly on the Web.

So why bother with them? Search engines are often useful at the very beginning of a search to get a quick view of a topic and at the very end to find contact information for experts whom you wish to contact about their on-going and just completed work. In addition, because the Web and the search engines are evolving rapidly, it is likely that search engines will become a better tool for locating research literature within the next couple of years.

To make the best use of Web search engines—to find what you need and avoid an avalanche of irrelevant hits—you should pick two or three search engines that are well suited to your needs and spend a few hours becoming moderately proficient with each. Each works somewhat differently, most importantly in respect to how you broaden or narrow a search.

The following will help you learn how to use search engines in a powerful and efficient manner.

It is best to select two or three general purpose search engines and learn how to use each well. The ones that have regularly received top rankings in the various tests over the last two year are:

- AltaVista – indexes substantial portion of the Web; has powerful search features.
- Excite – indexes modest portion of Web; delivers considerable news/business info.

- Google – claims to have indexed over a billion pages; is fast and offers good relevant hits.
- HotBot – indexes substantial portion of the Web; moderately powerful searching.
- Infoseek – indexes a small portion of the Web, but handles natural English queries.
- Lycos – indexes small portion of the Web.
- Metacrawler – performs an all-in-one searches of search engines like *Alta Vista* and *Lycos* and delivers good links to resources.
- Northern Light – indexes substantial portion of Web and some non-Web documents.
- Yahoo – indexes substantial portion of the Web, with human review of the appropriateness of each listed site in the directory.

A Tool for Organizing Key Points while Writing a Literature Review

Key point	Author	Author	Author
Leadership 21 st Century	Fry, 1996, p. 36		
Collegiality	Sergiovanni , 2001, p. 88	Jones, 2005. p. 16	Greenburg, 2005, para. 3

From an article, identify a relevant key point in the article that you might use. Mark the key point in your article. On the chart above add the author, yr and page or paragraph number (in an electronic text). This chart will help you see which authors agree and which authors disagree as well as help you find important quotes at different times of the process. It will also give you the page number if you need to use it in a direct quote.

An outline can be developed for writing your literature review as the list of key points develops from your readings. When you paraphrase an author or several authors, no page number is needed (APA, p. 207 – 214 and page 312 in Figure 5.1.).

When you use a direct quote you must use quotation marks and the author, year and page number. (APA, p. 117, 118, Figure p. 312 Block quote uses page number at the end of the quote and p. 213 for other uses.).

Use the direct quote if it can not be paraphrased and said with the same power. For example:

“Supervision is and always will be the key to the high instructional standards of America’s public schools” (Spears, 1953, p. 462).

A great site for reference construction:

<http://www.liu.edu/CWIS/CWP/library/workshop/citapa.htm>

Literature Review

Study Skills Defined

Schools across America have offered study skill classes for years. The purpose for teaching study skills was to teach students how to learn. "Learning how to study is learning how to learn" (Fry, 2005, p. 62). The development of study skills was a metacognitive approach to school. Through this learning process, there was a transcending cognition; in other words, the students thought about thinking and learned how to learn. Teachers believed that these study skills were important, but some felt unsure about what study skills were and how to teach them (Sedita, 2000). Various researchers have defined study skills as basic skills of learning (Sedita; Fry; & Bruster, 2006). According to Udziela (2000), even many state Department of Education and College Boards agreed that study skills should be included when speaking of basic skills. Cusimano (2001) defined study skills as life skills because their "acquisition affects life far beyond the classroom" (p. 15). The more adept a student is with reading, writing, speaking and study skills the more efficient and thorough he or she will be at getting a job of learning done (Sedita).

Fry (2002) and Udziela (2000) indicated that study skills could be categorized into various areas such as time management, test-taking preparation, and note-taking skills from lectures and texts. Yet they differed in important strategies to use. Fry classified classroom participation, library skills, library note taking, computer skills and writing papers as the strategies needed for student achievement. On the other hand, Udziela characterized study skills as test anxiety, study habits, reading comprehension, and vocabulary. These might even be categorized differently in the Middle School such as the AVID Program. (AVID, n.d.)

Insert a divider here.

EDU 645
SPRING AND SUMMER 2010
CREATIVE RESEARCH PROJECT

CHECKLIST FOR CREATIVE RESEARCH PROJECTS
July 2010

Format

Margins 1 ½” left margin, 1” all others
 Page number – upper right hand corner, 1 “down from the top
 Font – 12 point block style
 Laser quality print
 Double spacing throughout
 References, those used in paper present in Reference list, **single spaced within and double between references**
 Appendix Cover Sheet
 Appendix by page; margins, font, page numbers
 Final copy 24# cotton weight paper

Sequence of Final Creative Research Project

STATEMENT OF PERMISSION TO USE signed by all researchers
 TITLE PAGE
 SIGNATURE PAGE, approval signed by adviser and Director
 ACKNOWLEDGEMENTS
 ABSTRACT
 TABLE OF CONTENTS
 Introduction
 Statement of the Research Problem
 Rationale of the Study
 Research Questions
 Literature Review
 Delimitations of the Study
 Research Methods
 Description of Research Subjects
 Procedures
 Instrumentation
 Treatment of Data
 Findings
 Conclusion
 Discussion
 REFERENCES
 APPENDICES
 Appendix A

I have checked this paper and these elements are present in this order _____

Approved by the Director _____

Bring Project Approval Sheet for signatures
 Fill out binding information
 Sign on 24# cotton weight paper
 Printed on 24# cotton weight; burn 2 CDs
 Bond copies, form and \$ due 2 days before the Master’s Forum

**Organization of the Creative Research Project
(EDU 645 SPRING AND SUMMER 2010)**

The final *Creative Research Project* should be organized as follows:

Approval of Creative Research Project
Due by Master's Forum from the Director

Separate Page - NOT included in the final paper

*Use the checklist provided by Union University Graduate Office.
Must be signed by both your advisor and the Director of the MED program before
the paper will be accepted for final credit in the course.
The Project will be checked against the Project Checklist.*

STATEMENT OF PERMISSION TO USE

*Separate Page - NOT included in the numbering.
Use the form provided by Union University Graduate Office.
Bring a copy on bond paper for the final review.
Included ONLY in final Project.*

Title Page

*Separate Page - NOT included in the page numbering.
Double-spaced and Centered Horizontally & Vertically
The words "title page" do NOT appear on the page.*

Signature Page

*Separate Page - NOT included in the page numbering.
Use the form provided by Union University Graduate Office
Bring a copy on bond paper for each copy to be printed to the final review.
**The words "signature page" do NOT appear on the page.
Included ONLY in final Project.***

ACKNOWLEDGEMENTS

*Separate Page - Page 1
Included ONLY in final Project.*

ABSTRACT
Separate Page - Page 2
Corrected for the final Project.

TABLE OF CONTENTS
Separate Page - Page 3...
Included ONLY in final Project.

The Text

*Separate Pages – about Page 4 the body of the paper begins.
 Specific organization of the text follows.*

Title of the Project
In title case, centered

Introduction

Statement of the Research Problem

Rationale of the Study

Research Questions

Literature Review

Not present in the Pilot, completed during EDU 644 in the Fall.

Delimitations of the Study

Research Methods

Research Subjects

Procedures

Instrumentation

Treatment of Data

Findings

This section reports and summarizes the findings of the study. It is here that the author(s) clearly communicates the findings of the project as they relate to specific research questions or hypotheses. The research questions or hypotheses should be used to organize the findings of the study.

Conclusions

This section of the project pertains to the conclusions drawn from the investigation. The investigator(s) presents reasons for his/her findings. Conclusions regarding the data gathered should be explained in great detail and discussed.

Discussion (*in the final paper*)

The research conducted in the Master of Education program is intended to have an immediate impact on specific problems or concerns in educational practice. Thus, it is vital that a discussion of the implications be made relative to the importance of the findings. In essence, this section is the "So what?" response of the study. Forming assumptions and speculating about the impact of the findings of the research project are appropriate for this section. Suggestions for change relative to educational practice may be recommended. Strategies for meeting the needs of the students in schools, for example, may be formulated. The implications may also serve to reaffirm current practice if the research supports findings and strategies currently in place. This is the point at which the researcher(s) should demonstrate the practical applications and anticipated outcomes of the research findings. It is here that great detail is made of the results of the project. With action research, the intention of the researcher(s) is to provide other educators specific, practical outcomes so that they can implement the project's findings. These outcomes may refer to implications of the project related to educational policies, practices and/or governance. They may also refer to recommendations for future projects/research and suggestions of strategies for implementing the project at different grade levels with distinct groups or in divergent settings.

REFERENCES

Separate Pages – ARE included in the page numbering.

APPENDICES

Separate cover page – IS included in the page numbering.

Fonts and margins must be consistent throughout the documents included.

Include instruments used in collecting data. All projects need the parent permission letter, the principal permission letter is not necessary.

Appendix A

Title

Title at the top of the first appendix, title other appendices in the same manner. Margins must be maintained in appendices. Fonts should be consistent. Use of bold and italics is not acceptable.

APPROVAL
FOR
CREATIVE RESEARCH PROJECT

This form is designed to be completed by an individual M.Ed. student or collaborative team of M.Ed. students seeking final approval of their research project. This form should be completed and attached to the front of the completed research project and submitted to their research advisor. The approval signature must be obtained prior to submitting a grade for EDU 645.

Name of Student(s): _____

Research Advisor: _____

Title of Creative Research Project:

Brief Description of the Research Conclusion and Discussion:

Approved by:

Research Advisor Date: July 2010

Approved by:

M.Ed. Program Director Date: July 2010

Insert a divider here.

Forms and Sample Pages

Issued by the

Union University Graduate Education Office

Union University

Master of Education Degree

STATEMENT OF PERMISSION TO USE

In presenting this Creative Research Project in partial fulfillment of the requirements for a Master of Education degree at Union University, I agree that the Library and Graduate Office shall make it available to borrowers under the rules of the Library and Graduate Office. Brief quotations from this project are allowable without special permission, provided the accurate acknowledgment of the source is made.

Permission for extensive quotation from or reproduction of this project may be granted by the Director of the Library or the Dean of the School of Education and Human Studies when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying of the material in this manuscript for financial gain shall not be allowed without my written permission.

Signature _____

Signature _____

Signature _____

Date _____
July 2010

(Note: Each person who worked on the paper must sign this form.)

Perceptions and Experiences Pertaining to Mathematics Education
and Their Relationship to Math Anxiety

Creative Research Project

Presented to

The Graduate Faculty of Union University

In Partial fulfillment

of the Requirements for the Degree

Master of Education

James L. Anderson

Lucy C. Doyle

Katherine P. Walker

July 2010

(Note: Title Page, equal space at top and bottom margin, double space between names)

Perceptions and Experiences Pertaining to Mathematics Education
and Their Relationship to Math Anxiety

James L. Anderson

Lucy C. Doyle

Katherine P. Walker

Creative Research Project

Approved:

Dr.
Research Advisor

Date: July 2010

Accepted:

Dr.
Director of Master of Education Program

Date: July 2010

(Note: final Signature Page)

ACKNOWLEDGEMENTS

(Page numbers begin here with 1 in the upper right hand corner.)

ABSTRACT

*(Included in the Proposal with no page number.
It is revised to include results for final Project and is page 2. An abstract includes,
(1) purpose, (2) tells about the students and (3) includes the results.*

In America's schools today, motivating students to achieve in academic areas is often difficult. The researchers of this study, "The Relationship of Student Motivation and Achievement in Mathematics", investigated the connection between motivation and achievement of math students in the 1st and 2nd grades when a variety of instructional methods were used. These methods included the use of manipulatives, hands-on activities, calendar math and games. No statistically significant differences were found over the course of this six weeks study. However, an increase of student interest and participation was clearly evident from data recorded in teacher and student journals throughout the study. As a result of the study, researchers suggest teachers should incorporate these types of instructional methods to encourage motivation and achievement in mathematics.

(An abstract states the purpose of the study, describes the subjects, and summarizes findings in less than 120 words.)

TABLE OF CONTENTS

(Use table format to construct, you may NOT use dot leaders)

Section	Page
Introduction	4
Statement of the Research Problem	4
Rationale of the Study	4
Research Questions	5
Literature Review	5
Delimitations of the Study	19
Research Methods	19
Description of Research Subjects	19
Procedures	20
Instrumentation	23
Treatment of the Data	24
Findings	25
Conclusions	28
Discussion	29
REFERENCES	32
APPENDICES	35
Appendix A	36
Appendix B	37

REFERENCES

(Cover sheet for References, number continuously.)

REFERENCES

- APA Style, Reference Examples for Electronic Source Materials.
www.apastyle.org/electsource.html
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- Smyth, J. A., & Wesson, O.L. (2002, May). What's important here? *Informed Instruction, 5*. Retrieved May 26, 2006, from <http://edu.org/BEST/RSLT>

A great site for reference construction:
<http://www.liu.edu/CWIS/CWP/library/workshop/citapa.htm>

APPENDICES

(Cover Sheet for Appendixes, number continuously.)

Number continuously throughout the appendices.

Appendix A

A User Friendly Tour of the APA Manual - 5th Edition

← Sample title for an appendix.

When you find something useful to you in the APA Manual, mark the page and also record it in the Table of Contents for future reference.

Talk with others using the APA Manual and record their findings. You never know when you may need them.

StyleWriter 3.0

The Computer Labs have copies of a program called Style Writer 3.0. It has many helpful tips, but the most helpful is the reference template. You type in the correct information and it will produce a correctly formatted reference.

Summary of Useful Information by Chapter

Chapter 1

This chapter presents the purpose and the how to of writing a research report. This includes information you have had in class or in advising. The section on Literature Review (p.16) would be something you need to read now. Other parts such as the Abstract (p.12-15) will be helpful at the end of the paper.

Chapter 2

This chapter reviews the basics of concise writing and gives examples of ways to avoid language bias. Everyone should learn to avoid bias in the paper and be careful to take precautions to protect the identity of school and students according to the law and policies of your school district.

Chapter 3

The editorial style to be used is discussed in detail in this chapter. *It is best to read this chapter carefully and mark those things that you do not intuitively know.*

For example:

How to type numbers (p.125)

Use of the levels of headings is an important skill to learn (p.113-115). Levels 1, 3 and 4 are the most commonly used.

Page 120 begins an explanation of how to cite sources in the text. Further examples are given beginning on p. 207.

Table and figure formats that will be used as you write your findings and conclusions are near the end of the chapter.

Details about appendices begin on p. 205.

Chapter 4

As you have already discovered, citing a reference correctly is challenging, especially since there are so many kinds of references. Note the purpose of a reference list – to help a reader retrieve the source you used for further

information. Make sure that all sources used in your paper are included in the reference list. Examples of various forms of references are listed throughout the chapter. Read them! Mark them!

An index of examples begins on p. 232. The numbers that follow the listing refer to examples that follow (beginning on p. 240). For ex, citation in a secondary work is explained on p. 247.

Chapter 5

This chapter reviews the format of an APA document (see Union's Format Guidelines as first source). Mark the information on seriation (lists), quotations and ellipsis points . . . on p. 292-293.

If you can't figure it out from the description or if you do better looking at an example, detailed examples begin on p. 306.

Chapter 6

This chapter deals mainly with journal publication, however, it is important to note the section on the ethics of publication beginning on p. 348-349.

Appendix B

APA: List of Frequently Used Pages

217	Abbreviations
298	Abstract
205	Appendices
116	Arabic numerals for itemizing conclusions or procedural steps
120	Citation of sources
121	Citation of sources, end punctuation
293	Ellipsis points
100	Emphasis with <i>italics</i> , not bold
111-115, 289-290	Headings
291	Punctuation after parenthesis
292-293	Punctuation with quotations
117-121; 118	Quotation information, Block quotes
115, 116, 292	Seriation (Lists)
290-291	Spacing and punctuation
159, 173, 155	Tables; body, rules, citing
122 -127	Words expressed as numbers
306-320	Sample pages with illustrations
References	
232-239	Index to reference examples
207-214	Reference ex as cited in texts
215	Reference list in text
207	References in text, example
231, 278-281	Retrieved from Electronic source
209, 221, 223	No authors or Anonymous
249	Book, no author or editor
221-222	Anonymous works, pages
231	No author, Web citation
268-281	Electronically retrieved material
220-221	Same author, same year of publication
220-221	Same author, different year of publication
227	Italicized periodical and volume
228	Italicized title of non-periodical
227	Journal and magazine
217	n.d. (no date)
214	Personal communications
247	Secondary source
209	Group authors
213	Classic works such as the Bible
225	Editor of a book

No Bold or Italics needed on an Appendix page. Margins must be maintained.

Insert a divider page here.

Evaluation Pages

Writing Assessment Rubric

The Writing Assessment Rubric will be used to evaluate writing at all stages of the research process.

Organization

Exemplary	Accomplished	Developing	Limited
Paper, topic or assignment is clearly supported by an outline. Assignment completed correctly. Appropriate use of resources. Critical thinking apparent.	Adequate development of an outline or research to support topic. Assignment nearly completed correctly. Adequate use of resources. Critical thinking is average for graduate work.	Topic is not clear. Document is neither clear nor supported accurately by an outline or research. Assignment partially correct. Inappropriate organization negatively impacted the use of resources and the level of work.	An outline or research does not support document. Assignment does not follow guidelines correctly. Little to no preparation. Little to no organizational skills.

Writing Style

Exemplary	Accomplished	Developing	Limited
Correct use of grammar and punctuation. Above average use of vocabulary. Assignment has effective use of transition. Compliance with all APA guidelines.	Few errors (1 – 2) in grammar or punctuation. Average use of vocabulary and transition. Compliance with most APA guidelines.	Many errors (7 or fewer) with grammar and punctuation. Little transition or graduate level vocabulary used. Mistakes using APA guidelines or little use of APA guidelines.	Numerous (more than 7) errors in grammar and punctuation. Lacks the ability to produce professional, graduate level work. Does not comply with APA guidelines.

Appearance

Exemplary	Accomplished	Developing	Limited
Neat with no extraneous marks. Paper reflects personal pride in its presentation. Completely appropriate formatting used. Guidelines adhered to correctly. Superior, professional appearance.	Somewhat neat. Only a few weaknesses are evident. Acceptable formatting. Almost all guidelines correctly followed. Overall average appearance.	Several obvious imperfections. Very frequent typographical errors. Formatting and guidelines need major improvements. Overall appearance is below average.	Unacceptable graduate work. Unprofessional appearance. Guidelines not followed.

EVALUATION OF RESEARCH ADVISOR
FOR THE
CREATIVE RESEARCH PROJECT
MASTERS OF EDUCATION

Directions: Please briefly evaluate your research advisor's efforts in assisting you in completion of the Creative Research Project.

Advisor's Name: _____

1. Availability

2. Knowledge

3. Listening Skills

Other Comments

Collaborative Peer Evaluation
Creative Research Proposal/Project

For each of the following, complete the statement based upon your personal experiences when asked by your advisor.

I have contributed _____

during the last few weeks.

I wish we would change and do _____

In the research process, I have enjoy _____

Please describe the manner in which the work on the CRP has been done this term.

Please describe how you could improve the success of your group.

Insert a divider page here.

EDU 644
SUGGESTED ADVISING ACTIVITIES

By the end of EDU 644, you will have completed a polished literature review of 20 to 30 sources as outlined in the Guidelines. Once you receive permission to do research from your district, you will begin to gather data. Meetings with your group and your advisor will be regular throughout the semester. Your group will receive a grade in December for your activity during this period as outlined below.

* Get a copy of your *corrected* pilot to your advisor by email ASAP after receiving it from your research professor.

1. Meet with your advisor as a large group.
2. Advisers lead in a get acquainted activity
3. Discuss your topics with your advisor.
4. Review the CRP Guidelines.

*Your adviser will assign times for individual group meetings in the future.

BE SURE YOU DO THE FOLLOWING TASKS.

Goal in Computer Lab related to the CRP:

Learn to email articles home to yourself for review before printing.

Learn to create a file of articles for your research on the Union Server.

Goal for the Library related to the CRP:

Find 1 article related to your research topic.

Use StyleWriter 3.0 to create a reference for the articles selected.

Search for the following information in the *CRP Guidelines*. What you can not find there, find in the *APA Publication Manual*. Record the resource and the page numbers where you found the information. Check the CRP Guidelines first.

Find These:

Using numbers expressed as words.

Citing sources with direct quotations in text

Organizing your paper

Levels of headings within your paper

Adhering to the basic ethical principles that underlie all scholarly writing

Formatting quotations within the text of your paper

Formatting the title page

Structuring an introduction

Citing a work by multiple authors

Preparing a reference for a journal article retrieved from an electronic database such as Wilson Web found on Union's on-line databases

Using statistics in the text

Deciding whether to use a table or to present the information within the text

Reducing gender bias through the choice of nouns, pronouns, and adjectives

Format required for the margins of your paper

Formatting tables

Seriation (lists) in the text

Spacing after a period

Ellipsis or Spaced Periods

Grading Rubrics for EDU 644 and EDU 645

Adviser's Evaluation Rubric (December, May and July)

Creative Research Proposal/Project

Apply descriptions for each section of the items listed below. (These are in close alliance with the Checklist, with added sections for closer consideration of content, communication with others and writing.)

Exemplary (400-380)	Accomplished (379-340)	Developing (339-280)	Limited (279-below)
Format shows all items present without errors that detract from the CRP.	A few items are missing when needed or there are several errors that detract from the CRP.	The basic elements of the CRP are present, but attention to detail is still needed.	Paper has consistent errors in formatting and content.
Content of Proposal is ready to put into action. Project is ready for presentation.	Only a few inconsistencies in content remain. They do not detract from ability to do research or to present.	Ability to carry out research among the partners is limited. Clarity of presentation is in doubt.	Inconsistencies hinder research or presentation.
Writing Assessment Rubric should be used to score this section.			
References clearly follow CRP Guidelines and APA when necessary with NO errors.	References clearly follow CRP Guidelines and APA when necessary with few errors.	References attempt to follow CRP Guidelines and APA when necessary. Format errors evident.	References lack format and consistency throughout.
Appendices are present as outlined in the CRP Guidelines without error.	Most appendices follow the CRP Guidelines with a few minor errors.	Appendices are present but content is incomplete or formatting is incorrect.	Not all Appendices are present. Those present do not follow CRP Guidelines.
Communication with adviser has been on-time and consistent throughout the process. Lack of positive attitude and equality of cooperative work between peers was rare.	Communication with adviser has been on-time and consistent throughout the process. Positive attitude and cooperative work between peers most of the time.	Consistent communication failures with your adviser. Failure to meet as scheduled more than once. Lack of equal work among peers or other inconsistencies among peers.	Failure to communicate and follow directions of the adviser. Lack of communication and equality of work among peers.

Full Grading Rubric

Format (60 pts)

- Use of *CRP GUIDELINES*
- Organization
- APA when needed
- 12 point font
- Writing follows Writing Assessment Rubric (40 pts)

Content (100 pts)

- The Research Problem
- Rationale
- Research Questions
- Literature Review
 - Current sources
(Most sources within the last 5 years)
 - Relevance to topic
 - Flow
- Delimitations of the Study
 - Parameters chosen and controlled
- Research Methods
 - Clear description of project
- Research Subjects
 - Descriptive
- Procedures
 - Clear structure of project
 - Type of research used
- Instrumentation
 - Instruments selected appropriate for project (validity and reliability)
 - Instruments present in Appendices
- Treatment of the Data
 - Outline treatment of data
 - Note copyrighted material
- Findings
 - Use data to answer the research questions
 - Organized by research questions
- Conclusions
 - Draw conclusions from the investigation by presenting reasons for the findings
- Discussion
 - Show impact on specific problem or educational practice by:
 - Forming assumptions and speculating @ impact of the study
 - Make suggestions relative to change
 - Support for programs already in place or affirm current educational practice

- Provide practical outcomes so study can be implemented in another classroom
- Make recommendations for future research
- References (50 pts)
 - 8 to 10 in Proposal, 20 to 30 in final Project from educational journals
 - Majority current (1995 to present)
 - Limited use of Newspapers or popular magazine articles
- Appendices (50 pts)
 - Cover Page
 - Fonts
 - Title Page
 - Numbering

Communication with research advisor (100)

- Maintained contact with advisor
- Maintained contact and a cooperative attitude with your peers
- Assumed responsibility for learning the CRP Process

