

**STUDENT GUIDE TO COMPLETION OF THE
GRADUATE STUDIES DEPARTMENT
COMMUNITY ACTION PROJECTS**

April 2012

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STUDENT GUIDE TO COMPLETION OF THE GRADUATE STUDIES DEPARTMENT COMMUNITY ACTION PROJECTS

The following information presents guidelines for your successful completion of the graduate studies community action projects, including the Master of Arts in Lakota Leadership and Management Community Action Project (CAP) and the Master of Arts in Lakota Leadership and Management: Educational Administration School Community Action Project (SCAP). There are other requirements for the completion of the Master's degree program, other than the community action research projects—such as school principal internship induction, GPA, portfolio completion, etc.—which are not included here because they are not relevant to this presentation.

Proposal Process

The typical research paper, including master's thesis and doctoral dissertations are completed in a three-step research process. A research proposal is first developed which includes a detailed review of the literature in the selected field to provide a basis or beginning point for the research. Secondly, the research proposal is approved on a preliminary basis by those with greater experience in the research process, and by those who hold a responsibility to ensure the safety and well-being of research participants. Finally, the research is completed, recommendations are generated, and the research is presented to the community-at-interest and for peer review. While this process is similar at most institutions of higher education, the following information is presented for the specific research process at the OLC Graduate Studies Department for Master's degree candidates in the CAP/SCAP programs.

Preparation through coursework

Students are generally prepared to embark on this research process over the course of their studies in the Lakota leadership and management program. This preparation includes critical analysis of others' academic research; the development of annotated bibliographies of research articles and academic writing in the field of the student's interest; the study of research protocol and procedure that have been developed over the past 60 years; and general scholarship through coursework that informs the student's thought, reflection, and action. The program has a specific concentration on Lakota language, culture, natural sciences, and community that is the focus for this praxis.

Proposal process & committee

The research proposal is developed under the guidance of a three member research committee, which includes a Chairperson, who is a doctoral qualified faculty. The committee chair is also referred to as the Principal Investigator (PI) for the research process while the student is referred to as the student investigator, due to the fact that the student does not have full research authority at this institution. The committee also includes a member who expert in the discipline of the student and the study, and a community committee member representing Lakota Expertise and support to the student.

The first three chapters of the research paper take advantage of the above committee and academic preparation in the development of a proposal which includes an introductory section, literature review and proposed methodology Please see Appendix A, *HOW TO FORMAT YOUR THESIS* for the required research report format.

The literature review forms the basis or foundation of the research, forming a beginning point for the student's proposed research methodology. Usually, foundational

or seminal works, or theories of the field form the basis of the literature review leading up to, and justifying the present need or problem to be addressed in the study. This chapter may contain theories and models relevant to the problem, a historical overview of the problem, current trends related to the problem, and significant research data published about the problem.

The literature review could also provide insight into the socio-economic problems of the modern day reservation for a social or economic research study. Students who begin the Lakota Leadership and Management program with a full realization of this process understand that they may begin to formulate their research ideas and begin their literature review in as early as the first few classes.

The methodology of the research proposal would then be developed to address the problems or research questions identified, with the assistance and approval of the committee Chair. Methodologies generally include nonexperimental quantitative research such as surveys and questionnaires, *ex post facto* reviews of existing educational data; and other qualitative research such as case studies, observations, and other descriptive ethnography and historiography. The general rule for research is *Like vs. Able*—a researcher may like to conduct a certain study, but may not be able to due to cost, location, and other factors in the proposed design. Consult with your committee chair early and often to ensure that the design you choose is achievable.

Approval Process and Peer Review

The next step in the three step research process is Peer Review. The proposal, which is again the first three sections of the research paper including Chapters I – III, the Introduction, Literature Review, and Methodology, is presented before their peers at the colloquia.

As mentioned above, the program has a specific concentration on Lakota language, culture, natural sciences, and community that is a focus of study, and this is reflected in an introduction of the student and the research title. A fifteen minute presentation and fifteen minutes Q&A is required at the colloquia, and all current candidates are expected to present. Students may receive constructive criticism and recommendations to improve the

The committee chair also approves of the research proposal, and with this approval the student may apply to the OLC Institutional Review Board (IRB) for a review of human subject protections within the proposal, if any. Please see Attachment B – *OLC Institutional Reviews Board* for a more complete discussion of the OLC IRB. You may follow this link to the OLCIRB web site and appropriate forms and instructions http://www.olc.edu/local_links/irb/ . All research conducted by OLC faculty staff and students, or research utilizing OLC premises and equipment requires IRB approval, regardless of its location. Another research review board—OST Tribal Research Review Board—requires its approval for research conducted on the Pine Ridge Indian Reservation, but this would not cover off-reservation educational sites of OLC. Other IRBs may regulate research at other Tribal or federal facilities, such as Indian Health Service, and schools and other institutions will require site approvals for research studies

and data use, as appropriate. Please address the need for these required IRB (or ethics board), and site approvals early in your research planning.

The timing of your research activities are generally proposal colloquia, Chapter I – III approval by Chair, and IRB approvals in the first semester of the two-semester LakM 703 course or LMEA 796; and research paper and final colloquia presentation in the second semester; with a number of significant milestones provided by the Department to keep students on-track. Please see Attachment C- *Graduate Studies 2012/2013 CAP/SCAP Process* for this scheduling and milestones.

Research and Project Completion

Once you have all approvals in place you may begin your actual research which often consists of data collection, or other survey, interview or observational studies. The resulting data, and the quantitative statistical or qualitative content analysis will be presented in tables, figures, and written in the findings section, Chapter IV of the research paper. Chapter V of the paper consists of the conclusions, a discussion and your recommendations for action or further research.

The presentation of this final result, which comprises all five sections, Chapters I-V, including the Introduction, Literature Review, Methodology Findings and Recommendations is the completed product of the CAP/SCAP research process. While the majority of the research proposal, Chapters I – III, is written in the present and future tenses, it must be restated in past tense, to conform with the methodology and findings in the final report or thesis, which are written mostly in the past tense. This reflects that the research is completed and has been done.

Preceding the main body of the report are several pages containing the preliminary material. The most important part of this *front matter* is the Abstract, and in keeping with the Lakota emphasis of the program, there are both a Lakota language abstract and an abstract written in English. Appendix A, *HOW TO FORMAT YOUR THESIS* lists the elements (in order) that comprise the preliminary material of the final research report, designated with lower case roman numeral page numbering (i, ii, iii, iv...), and the main paper designated with Arabic numeral page numbering (1, 2, 3, 4...). While both proposal and final thesis contain a Title Page, the remainder of the preliminary pages are reserved for the final document (although the Table of Contents is optional in the proposal)

Attachment A- HOW TO FORMAT YOUR THESIS

HOW TO FORMAT YOUR THESIS

by
Alpha Baker Charlie

A School Community Action Project
submitted in partial fulfillment of the requirements
for the degree of
Master of Arts
(Educational Administration)
in the
Graduate Studies Department
Oglala Lakota College
2004

Committee Members

Delta Wing, Chair
Facsimile G. Machine
Geranium F. Plant
Epson T. Printer

Master's Committee

The members of the committee appointed to examine the School / Community Action Project and the accompanying Master's thesis of YOUR NAME HERE (not in caps) find it satisfactory and recommend it to be accepted.

Chairperson

Committee Member

Committee Member

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ABSTRACT

This is the page for your abstract to be written in Lakota. The abstract should succinctly describe your research project. It should be entirely contained on this page. Double space the abstract and left justify it. The first line should be indented half an inch. The spell checker in your word processing program should have a lot of fun with this page since it will be in Lakota.

ABSTRACT

This is the page for your abstract to be written in English. This should be a very good translation of your Lakota abstract. It too should be entirely contained on this page, be double spaced and left justified, and the first line should be indented half an inch. The spell checker in your word processing program should have a lot less fun with this page since it will be in English.

This is where your acknowledgements or dedications are to be located. There is no title on this page. The first line is not indented. The paragraph is either centered or may be left justified. This is an optional page in your thesis. If you wish, you may omit it. On the other hand, you may use this page to acknowledge or dedicate your work to whomever or whatever you wish.

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CHAPTER 1: INTRODUCTION

Chapter 1 introduces the study and gives its focus, beginning with general background information about the problem under investigation. The introductory paragraph(s) should provide the reader with a brief summary of the literature and foundational research related to the problem, and should lead to a statement of the problem, which follows.

Statement of Problem

This is where you will state your research problem, and the hypotheses that you developed. The problem statement is among the most critical parts of the research proposal because it provides the focus and direction to the study itself. This section may include a numbered list which outlines the specific research questions that will be pursued in order to answer the problem and hypothesis.

For example, a research problem may state that there is a significant shortfall of funding in math and science programs for Native American elementary and secondary students, given the preexisting conditions of oppression. The specific research questions to prove this hypothesis are as follows:

1. Is the performance of Native American k-12 students on the Dakota Step math test different from non-Indian students' performance, in South Dakota?
2. Is the performance of Native American k-12 students on the Dakota Step science test different from non-Indian students' performance, in South Dakota?

Please note that the statement of the research questions above provide a high degree of direction to your study, and a degree of unambiguous response that may not be possible in the problem statement or hypothesis. In addition, this format will lend consistency across the subsequent chapters of your research paper.

Importance of Study

This section addresses the "so what" of the study and report. It describes or explains the potential value of the study and findings to the social sciences or the field of education. This section, therefore, should identify the audience for the study and how the results will be beneficial to them. Remember, research is conducted to add to the existing knowledge base and/or solve a problem – how your particular research will do this should be articulated in this section.

Definition of Terms

This section of Chapter 1 provides definitions for terms used in the proposal that are unusual or not widely understood. In addition, common terms that have special meaning in the study should be defined in this section. Acronyms (except those in common usage) frequently require definition at this point.

A brief introductory statement usually precedes the actual list of definitions that are italicized, first-line indented, and listed in alphabetical order. The following is an example of the introduction to this section:

The following definitions are provided to ensure uniformity and understanding of these terms throughout the study. The researcher developed all definitions not accompanied by a citation.

When defining terms, it is important to cite appropriate references if all or some of your definitions are taken from other sources. As is true throughout the research paper, direct quotations (less than forty words or four typed lines) should be enclosed in quotation marks and the specific page number from the source of the quotation included in the citation. See the APA manual for more information regarding long direct quotation format. The following examples illustrate this format (the first definition is paraphrased while the second is a direct quotation).

Interest groups: An instructional arrangement in which students are grouped according to their interest in a specified topic (Sumner & Lafortune, 1994).

Prevention: “Early, intensive, and untiring intervention to bring student performance within normal limits” (Slavin et al., 1992, p. 85).

Limitations

Limitations are factors, usually beyond the researcher's control, that may affect the results of the study or how the results are interpreted. Stating limitations of the study may be very useful for readers because they provide a method to acknowledge possible errors or difficulties in interpreting results of the study. Limitations that are not readily apparent at the start of the research project may develop or become apparent as the study progresses. In any case, limitations should not be considered alibis or excuses; they are simply factors or conditions that help the reader get a truer sense of what the study results mean and how widely they can be generalized. While all studies have some inherent limitations, you should address only those that may have a significant effect on your particular study.

Examples of frequently encountered limitations might include the following:

1. Due to the small/unique sample available for the study, results may not be generalizable beyond the specific population from which the sample was drawn.
2. Due to the failure of sample respondents to answer with candor, results might not accurately reflect the opinions of all members of the included population.
3. Due to the length of the study, a significant number of respondents available in the preliminary testing may be unavailable or unwilling to participate in the final stage of testing.

Although stating limitations of the study assists the reader in understanding some of the inherent problems encountered by the researcher, it is also important for the researcher to design and conduct the study in a manner that precludes having many or severe limitations such that any results of the study are essentially useless. Research designs that control or account for the unwanted influence of extraneous variables help assure that the study results are both valid and reliable, thus keeping limitations of the study to a reasonable number and scope.

Delimitations (Optional, and may be listed under limitations)

Delimitations are factors that affect the study over which the research generally does have some degree of control. Delimitations describe the scope of the study or establish parameters or limits for the study. Frequently, setting limits on the sample size, extent of the geographic region from which data are collected, response formats included in data-collecting instruments, or the time frame for the study makes the study feasible for the researcher, and such delimitations should be noted here. Technically, delimitations (factors which the researcher controls) are distinct from limitations (over which the researcher has little or no control. Examples of delimitations might include the following:

1. In order to assure manageability of the collected data, survey instruments used only multiple-choice items and did not include open-ended response items.

2. Due to the large number of potential participants in the study population, the population involved in the current study focused only on Native American k-12 students located within South Dakota.

Recommendations for further study made in Chapter 5 frequently address limitations/delimitations present in the study. This allows future researchers to incorporate the information generated by the study, while simultaneously suggesting ways in which their future studies might be more comprehensive, or otherwise improve on the present study.

Assumptions

Assumptions stated in this section of Chapter 1 usually address limitations that the researcher is aware of that may affect the study, but which the researcher will not attempt to control. Assumptions may also be used to state whether or not limiting factors are likely or unlikely to affect the outcome of the study. Generally, conditions that have already been stated as limitations or delimitations should not be addressed in this section. If respondents' honesty has been listed as a possible limitation for example, there needn't be an assumption that respondents will answer honestly.

Examples of assumptions might include the following:

1. It is assumed that during this study, participants' gender will not significantly affect their perceptions.

2. It is assumed that all Dakota Step math and science scores accurately reflect k-12 students' abilities, for both Native American and non-Indian populations.

Section breaks heading.

CHAPTER 2: REVIEW OF LITERATURE

The purpose of this chapter is to provide the reader with a comprehensive review of the literature related to the problem under investigation. The review of related literature should greatly expand upon the introduction and background information presented in the Introduction. This chapter may contain theories and models relevant to the problem, a historical overview of the problem, current trends related to the problem, and significant research data published about the problem. The first few paragraphs of the literature review generally indicate how the chapter is organized and explains the subsections that comprise the chapter.

There are any number of formats that may be used to review the literature. A chronological ordering of the prior research, beginning with foundational or seminal works and theorists in the field would provide a reasonable basis for most educational discipline studies. Opening events and circumstances in the evolution of a movement, such as AIM, would certainly be appropriate to provide insight into the socio-economic problems of the modern day reservation for a social or economic research study.

Research reports dealing with Native American history or perceptions may require significant discussion of respective tribes, culture, language and governmental relationships. On-reservation k-12 school studies may require some introductory discussion of BIA/BIE funding programs, contract school structure or other governmental relationships to aid the reader's understanding of the research

As the literature review may be lengthy, it is essential to divide the chapter into as many sections and subsections as needed to logically organize the information presented. Each section and subsection heading must be properly listed in the Table of Contents and

adhere to the rules given in the APA manual for section headings. Generally, use Level 1 headings for chapter numbers and then use levels 2 through 5 for chapter titles, section headings, and subsection headings. The table of contents of this document should include three levels of headings, but you may use more if it aids in the structuring the paper.

Chapter 2 presents information and conclusions drawn by other researchers— citations should be extensive throughout the chapter. However, the literature review is not the place for the researcher to interject any personal ideas or theories. Direct quotations, indirect quotations or paraphrasing, as well as any information attributable to other researchers and individuals require citations. Citations (and subsequent references at the end of the dissertation) should use the format recommended by the *Publication Manual of the American Psychological Association*, 6th edition (2007).

It is difficult to estimate how long this chapter should be. In some studies that rely on historical and extensive descriptive information the literature review may be the main focus of the whole research report and quite long. In general, however, the master's thesis literature review should be between 5 and 10 pages, and including references to 25 books and articles, 75% of which should be academic, peer reviewed journal articles, research reports, and/or books from the academic field defined by the study.

CHAPTER 3: METHODS

The section on methodology may begin with a restatement of the research problem, include accompanying hypotheses or research questions), and indicates the major sections to be included in this chapter. The following information regarding methodology should be comprehensive and detailed enough to permit replication of the study by other researchers. To restate the research questions from Ch. 1, the questions that this research seeks to answer questions are:

1. Is the performance of Native American k-12 students on the Dakota Step math test different from non-Indian students' performance, in South Dakota?
2. Is the performance of Native American k-12 students on the Dakota Step science test different from non-Indian students' performance, in South Dakota

Subjects

This section describes the population used in the study and the process utilized in selecting a sample. Unless the population is extremely small, a sample usually will be drawn from a population. The sample should be small enough to provide a manageable volume of data, but the sample must accurately represent the population if any valid inferences are to be drawn from the sample results.

In general, the sample will accurately represent the population from which it is drawn if (a) sample selection carefully follows an appropriate sampling design, (b) the sample is randomly selected from the population, (c) a large enough sample is selected in

relation to the total population, and (d) the sample size is adequate for the data-collecting instrument being used.

In order to provide human subjects protection, specific names and organizational identifiers should be avoided except in broad terms. Such statements as "several k-12 school districts located on Native American Indian Reservations" or "teachers from selected elementary schools within a large urban district" are preferable. Specific identifiers may be used when there is little or no chance of specific identification of individuals or groups (e.g., "teachers from several selected elementary schools in Western South Dakota"). Your description of the population and sample should be thorough enough, however, to permit another person replicating the study to define a similar sample from a similar population.

It is also acceptable to separate this section into two distinct sections—one for population and the other for sample. Also, if you include all of a population within your study—e.g., all the special education directors in the state of South Dakota—it is unnecessary to use the term sample at all).

Procedures

This section describes the procedures used for developing an instrument to gather data from your selected population/sample. This generally includes sources of items for the instrument as well as a description of the instrument itself, such as the number of items on the instrument, response format of the items, etc. Sources of items for an instrument might include information gleaned from the literature review or may be an adaptation of a previous study or commercially available instrument. Instrument reliability and validity data should be described in this section whenever possible.

Instruments developed by the researcher should always be pilot tested (or field tested) to ensure instrument validity and clarity of instructions and items. In general, subjects similar to those who will be in the study sample (but not included in the actual sample) may serve as subjects for pilot testing. Results of pilot testing and accompanying comments should be used, if necessary, to revise the instrument before distributing it to the actual sample.

The instrument may also be juried or critiqued by having several "experts" examine it and make recommendations prior to distribution of the survey. While critiquing involves only several experts examining the instrument and making recommendations, pilot testing implies actually following all of the steps of data collection with a smaller pilot sample and analyzing the results from the collected pilot data.

While somewhat more time consuming, pilot testing obviously affords the researcher much greater information that leads to a more reliable and valid instrument. The decision regarding pilot testing versus critiquing the instrument should be made following discussion with the researcher's committee. The advisor and/or dissertation committee, as well as the Human Subjects Committee should always approve the final form of the instrument, as well as material to be pilot tested, before it is distributed.

Data Collection

This section describes in detail how the data will be/were (proposal/final dissertation) obtained and the timelines involved in collecting the data. Information commonly provided in this section includes what materials will be/were distributed such as survey instrument, cover letter, instruction sheets, self-addressed stamped envelope;

how they will be/were distributed— mailed to each participant, mailed to someone who distributed them to each participant; and when they will be/were distributed—all surveys were mailed on July 12, 20XX, with a follow-up survey sent to all nonrespondents two weeks later. Beginning and ending dates for data collection are often included in this section.

Data Analysis

This section of Chapter 3 describes in detail treatment and analysis of the collected data. Methods of data analysis are primarily determined by the hypotheses to be tested or research questions to be answered (which also determine the format of the instrument and how the data are gathered) and the level of data being gathered (nominal, ordinal, and/or interval). When several hypotheses/research questions are being addressed, it is helpful to describe the data analysis that will be used for each hypothesis/research question. For example:

1. A response to research question one, regarding the performance of Native American k-12 students on the Dakota Step math test different from non-Indian students' performance, in South Dakota will be generated by computing means and standard deviations for each school by grade level.
2. In response to research question two regarding the performance of Native American k-12 students on the Dakota Step science test different from non-Indian students' performance, in South Dakota will be generated by computing means and standard deviations for each school by grade level

When inferential statistics are employed, it is helpful to identify the independent/dependent variables for each analysis. In addition, any complex statistical

procedures being used should be briefly described and its source referenced. Tests of significance should be accompanied by a statement of the level of significance that will be used (e.g. all statistical analyses will use the .05 level of significance). The statistical software package being used, as well as reference to any individuals assisting the researcher with data analysis, should also be stated at the end of Chapter 3.

The most commonly used descriptive statistics include means, standard deviations, frequency counts, and percentages. Among the most commonly used inferential statistics are chi-square, *t* test*, analysis of variance (ANOVA), and various correlation coefficients. More complex statistical procedures include analysis of covariance (ANCOVA), multivariate analysis of variance (MANOVA), factor analysis, canonical correlation, multiple regression analysis, and discriminant analysis.

Summary (Optional)

This final section contains a brief summary of the methodology described in this chapter. In general, summary sections for Chapter 3 are included only when the methodology section is very long or complex. The summary section should provide a smooth transition to Chapter 4.

Qualitative Research Methodology

The general structure for Chapter 3 previously described should suffice regardless of the specific research methodology employed for the study. However, several comments regarding the specific requirements of reporting qualitative research methodology are in order.

Unlike quantitative research, in which the researcher collects data as an objective and generally passive observer, many forms of qualitative research (e.g. ethnography,

historical research, case studies, and grounded theory testing and development) depend much more directly on the researcher as an active participant in gathering data for the study. Additionally, in many forms of qualitative research design, the method(s) by which data are collected and used to draw conclusions is/are as important as the conclusions themselves.

Therefore, it is incumbent upon the qualitative researcher to carefully describe the methodology employed in the data collection phase of the study. The researcher must provide a comprehensive description of the development of the research instrument used to gather data, as well as any changes made in the instrument as the data collection process proceeds. In addition, the researcher's role in the actual collection of data must be clearly articulated to provide a clear framework within which the reader can better understand why certain data are considered relevant to the study and other data are considered extraneous. The subjectivity that is permitted the researcher in qualitative research implies a greater responsibility to articulate to the reader the basis upon which data may be selectively incorporated or discarded during this phase of the study. Finally, the researcher must carefully describe verification steps or processes (such as triangulation or data saturation) used to substantiate that the data selected for inclusion in the study are valid and reliable. In general, the extra flexibility allowed in qualitative research design requires the researcher to carefully describe how data are collected and utilized within the study.

CHAPTER 4: FINDINGS

Chapter 4 provides results of data analyses and findings of the study. This chapter is limited to reporting findings and results, and is not the proper place for conclusions or discussion of the findings. The chapter begins with an introductory paragraph(s), as do all chapters, which delineate the major sections to be included in the chapter, and may include a restatement of the research problem, they may include accompanying hypotheses or research questions. To restate the research questions, for example, this study sought to answer the following research questions:

1. Is the performance of Native American k-12 students on the Dakota Step math test different from non-Indian students' performance, in South Dakota?
2. Is the performance of Native American k-12 students on the Dakota Step science test different from non-Indian students' performance, in South Dakota?

While there is no one "correct" format for dividing Chapter 4, information regarding response rate and respondent demographics (when relevant) is usually reported first, followed by reporting of results of data analysis for each hypothesis/research question. Please note—the Findings and Recommendations sections are written in past tense, the research having been conducted at this point in the process. The first three sections of the research paper—Introduction, Literature Review and Methodology—will need to be rephrased in the past tense as well when you complete the research study.

Response Rate

Before reporting findings from data analyses—especially when dealing with survey research—the response rate is often described. This allows readers to gauge how many instruments were distributed, how many were returned, and what the overall rate of response to

the survey was. This section may be included as part of the introduction without a specific section heading.

Demographic Data

Following the introduction (and response rate data, if included separately), the next section frequently provides demographic information regarding the study population and sample. As most surveys include at least several demographic items, this section provides readers with a picture of the demographic composition of the respondents/participants. Information such as gender, age, position, years of experience, etc. is usually reported in this section. This section may also be included without a specific section heading, although a heading is oftentimes helpful to the readers.

Findings

The remainder of Chapter 4 reports findings related to the hypotheses being tested or research questions being answered. A specific section heading should be used for each section in Chapter 4 that reports findings resulting from data analysis. In terms of general format, data are reported in tabular (tables) or graphic (figures) form accompanied by text describing the salient information contained in each table or figure. See the *Publication Manual of the American Psychological Association*, 6th edition (2007), for specific information regarding the proper format for tables or figures and the relationship of the tables/figures to the accompanying text. A table is generally limited to columns of numbers with appropriate column headings. Figures usually contain graphics such as graphs, diagrams, or photographs.

It is recommended that extremely long tables/figures or very detailed information not be included within these findings. Due to space requirements (and questionable interest to most readers), it is better to place this information in an Appendix and note here where the detailed

information is located in the Appendix. (see Appendix A, Year 2012 Data tables of Dakota Step math and science scores, by school) A detailed list containing survey respondent's answers to every survey item would be more appropriately placed in an Appendix, while a summary table showing the item means should be included in Chapter 4. A note such as, "Individual responses to each survey item can be found in Appendix B" would alert interested readers where this detailed information can be found.)

Statistical Symbols (not a Findings section subheading)

When reporting statistical results of data analyses (particularly inferential statistics) it is appropriate to include sufficient information in the table and accompanying text to permit the reader to corroborate the results of the analyses. Therefore, appropriate statistical symbols should be utilized to report these results.

Within master’s thesis (and other manuscripts) statistical symbols are italicized. Words, rather than symbols, should be used in the narrative, while symbols may be used in tables and inside of parentheses within the narrative. For example, “The mean of 3.25 for the Native Americans was higher than the mean of 3.00 for non-Indians in the sample.” But, “The Native Americans scored higher overall ($M = 3.25$) than the non-Indians ($M = 3.00$) in the sample.”

Among the more commonly used statistical symbols are the following:

- M = mean df = degrees of freedom
- SD = standard deviation $t = t$ statistic (t tests)
- f = frequency F = Fisher’s statistic (ANOVA)
- p = probability r = correlation coefficient (Pearson)
- N = number X^2 = Chi-square statistic

It is also helpful for the reader if some basic information accompanies the statistical result presented in the text. Information usually includes such data as degrees of freedom (*df*) or sample size (*N*). The following examples demonstrate how commonly used statistics would be reported in the narrative.

1. Results of the *t*-test for independent samples indicated a significant difference in mean scores for the Native Americans ($M = 3.75$) and non-Indians ($M = 3.00$), $t(50) = 2.54, p = .024$.

2. Results of the chi-square test indicated a significant association between race and mathematics achievement, $X^2(3, N = 48) = 12.54, p < .05$.

3. Results of the chi-square test indicated a significant association between race and science achievement, $X^2(3, N = 48) = 12.54, p < .05$.

Summary (Optional)

This final section provides a summary of the highlights of the findings from Chapter 4 and provides a transition to Chapter 5.

CHAPTER 5: DISCUSSION

Summary

The Summary section of Chapter 5 provides a brief recap or reintroduction to the entire study. Generally, this section summarizes the introduction, problem statement, literature review, methodology, and findings. Someone reading this section would have a good overview of why the study was done, the specific purpose of the study and hypotheses/research questions, what the literature relates about the problem under investigation (very briefly), the methods used to gather data for the study, and findings emerging from analysis of the data.

Although there is no given length for this section, usually two or three pages provide an adequate overview of the study. If the section gets much longer than this, it fails to remain a "summary." Also, note that findings from Chapter 4 comprise part of the Summary section of Chapter 5 and are not included as a separate section in Chapter 5.

Conclusions

This section presents conclusions drawn from the findings and results of the data analysis. Findings from the present study go to answer the stated research questions, and should provide the primary information for drawing conclusions. Frequently, conclusions provide answers to broader hypotheses or research problems posed in Chapter 1. While conclusions may be written in narrative form or listed one at a time, listing them one at a time is generally easier for readers to follow and helps maintain clarity of focus for each conclusion. An important observation regarding conclusions is in order:

Conclusions are not the same as findings and should not simply be restatements of findings from Chapter 4. A conclusion should be broader and more encompassing than a specific finding, and several findings may be incorporated into one conclusion. While several findings may be used to support one conclusion, it is also possible that one finding might give rise to several conclusions (although this is somewhat less common). Generally, while specific findings are stated in the past tense, such as Native American Students in k-12 schools performed as well as non-Indian students, conclusions are stated in the present tense, as in higher funding for on-reservation school math and science curricula is recommended. The following offers another example of the relationship between findings and conclusions.

For example (not a Discussion section subheading)

A study of public school superintendents across the United States in 1991 yielded the following findings:

1. Only 5% were non-White
2. Only 8% were female

From these findings the following conclusion was drawn: *Women and minorities continue to remain underrepresented in the ranks of public school superintendents.* (Please note: this conclusion combined both findings into a single broad statement that appears well supported by the study findings.)

Discussion

The discussion section provides a forum within which the researcher explores and attempts to explain findings and conclusions that emerged from the study. Within this section, the researcher attempts to interpret findings and conclusions, and relate these to both the purpose of the study and to published results from other studies examined in the literature review. This section may be used to forward theories and/or models, or raise questions regarding previously developed theories.

It is important to note that the discussion section in Chapter 5 provides the researcher with one of the very few opportunities throughout the dissertation to explore ideas and possibilities. Unlike most other sections of the dissertation whose content and form are dictated by fairly rigid standards, the discussion section may be open-ended and take the form that researcher desires. Some researchers choose to discuss each conclusion or finding separately, while others prefer to address several or all of them at once in a general discussion.

Recommendations

The final section of Chapter 5 may contain recommendations that emerge from the study. Generally, recommendations are of two distinct types; recommendations for action or practice (praxis) based on the study's findings and conclusions, and sometimes headed *Recommendations from the Study* or *Recommendations for Practice*, and *Recommendations For Further Study*. Frequently a separate section is included for each set of recommendations – each with an appropriate section heading.

Recommendations for practice are generally prescriptive in nature and address what could or should be done by practitioners or members of the intended audience in terms of professional practice and policy. These recommendations are based upon results of the study.

Recommendations for further study contain suggestions regarding follow-up studies or replication studies. These recommendations usually acknowledge limitations or delimitations that the study included and which further studies could help explain or clarify. These might include different methodologies, expanded populations or samples, or changes in the instrument itself.

CHAPTER 6: IMPLEMENTATION

Proposals to implement recommended changes in praxis, generally involving intact groups or participants proceed with an intended outcome of change through collaborative effort. Collaborations between school staff, teachers, and administrators, and college faculty, or educational agencies, regional educational laboratories or experimental school personnel are often designed based on the outcome or expected outcomes of the action research. Action research includes of applied research conducted at the local level to solve day-to-day, practical problems, and other evaluative research used in the decision-making process.

Students should be able to regularly complete action research study and implementation projects in their future administrative or management positions, as an expected outcome of this educational program. However, implementation of your CAP/SCAP research project at the school or community level is not a requirement of the Graduate Studies Department at this time.

Disclaimer: Every effort has been made to provide students with complete and accurate information. The Graduate Studies Department reserves the right to modify, amend or revoke any rules, regulations, schedules and to change programs and program requirements. The Community Action Projects Guide is provided to ensure a successful and productive research experience.

Attachment B - OLC Institutional Review Board



Oglala Lakota College

Institutional Review Board

PO Box 490

Kyle, South Dakota 57752-0490

Phone (605) 455-6000 ♦ irb@olc.edu

INSTITUTIONAL REVIEW BOARD Informational Release

Introduction

The OLC Board of Trustees implemented Policy 74-000 Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC) in March 2003 to provide for the ethical and moral treatment of human research participants, and humane treatment of animals

The IRB was established to review both medical and behavioral research for projects involving any students and staff of OLC, and including students of the Head Start programs and any clients of the OLC Nursing Department. The IRB must also review any research project dealing with human research, any part of which is conducted on the campuses or supported by OLC, regardless of student or staff participation. The Oglala Lakota College encourages beneficial research, but it must protect the rights of human subjects that are involved in such research, and it must ensure that ethical principles of research follow both Lakota and societal cultural bases.

The IRB is required under the Public Welfare laws of the US, and by OLC policy. Research is defined by the Federal government as: “A systematic investigation, including research, development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for the purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities” 45CFR 46.102

Exempt Research Review Process

There are two IRB review processes—Full Committee Review and Exempt Review. An exempt research project is one which poses minimal risk of harm to the human subjects, and the review is carried out by the Chair of the IRB. For instance, most student community action research projects (CAP) and school community action research (SCAP) at the Graduate Studies Department pose minimal risk to the human participants. The proposal, the participant's consent, and the parental or guardian consent and release forms, and an Exempt Research Application form is submitted to the IRB for review.

Full Committee Review

Full committee review of non-exempt research, including clinical or biomedical research, is conducted for those projects which may pose risks, however small. Behavioral studies of human participants including experimentation, observation and survey research of human subjects in the social sciences such as psychology, sociology, business and economics, require IRB approval. Whether full review, or exempt, depends on the perceived risk to participants. Any non-OLC student or staff utilizing the campus for research should be directed to the IRB.

In addition, this category includes federally mandated reviews of any research involving prisoners and pregnant women because of their vulnerable status. General student research conducted for institutional purposes is not covered by the policy and law, but it is recommended that anyone preparing a research project of any type dealing with students, student data or other living people should seek peer review before assuming that it is not "human research" for the purposes of the policy. Such a peer review should consider IRB, FERPA, HIPPA and other personal privacy and health protection laws, as applicable.

Attachment C - CAP/SCAP Timelines