CHAPTER III. METHODOLOGY

Introduction

Comparatively little research has been conducted on the female experience in school administration. The present study, therefore, makes few assumptions about the nature of that culture or its administrative effectiveness. A qualitative research approach seeks to provide a naturalistic perspective on female administrative behavior. The results of this approach will provide information to expand the body of existing knowledge about effective school leadership.

The case study approach facilitates an in-depth investigation of the attitudes, beliefs, experiences, perceived needs, and administrative behavior of the female principal. The use of grounded theory analysis complements the case study approach by providing systematic and reliable strategies for analyzing information collected during the investigation. Together, as a mode of inquiry, they provide descriptive contributions to administrative theory construction, and, therefore, useful contributions to the field of educational administration.

Case Study Method

A case study is "an empirical inquiry that (a) investigates a contemporary phenomenon within its real-life context; when (b) the boundaries between phenomenon and context are not clearly evident; and in which (c) multiple sources of evidence are used" (Yin, 1989).

This research undertaking is a social psychological case study, descriptive in nature. It employs concepts, theories, and measurement techniques from psychology in the investigation of a social unit. The social unit is the individual principal studied within the social context (setting) of a school. The principal is the focal point through which an examination of the aspects of human behavior associated with administrative style occurs.

Site and Sample Selection

Sampling in case study research requires that a researcher select a research site, time, people, and events (Burgess, 1982). Probability, although an important issue in quantitative research, is of lesser importance in most qualitative research. In fact, nonprobability sampling is the method of choice (Miriam, 1988).

Nonprobability sampling means that there is no way of estimating the possibility, based on number of occurrences, that an element [in a population] has to be included in a given sample. Furthermore, contrary to the goals of quantitative research, generalization to a population is not important. What is important is getting some idea of the variety of elements available in the population to which this sample belongs (Chein, 1981).

The researcher selects a sample for its ability to provide understanding about some phenomenon or social unit, that is, its purposefulness. Strauss and Glaser (1967) argue that when the intent of an investigation is to add to the knowledge base (i.e., contribute to building theory), investigators must continually stay open to what data emerges in order to develop theory as it emerges.

The purpose of this investigation is to describe how female principals administer in their schools in order to obtain a view of the administrative world from the perspective of a female. It is, therefore, important to select a sample of women who work in schools. There is limited information about the experiences of female principals because of their under-representation in this occupation. On the other hand, there are many public schools. The social context (setting) for this study is a high school, chosen for its complexity as a social organization and its familiarity to the researcher.

The sample for this study consists of three female high school principals. This group represents three-fourths of the female high school leadership in the geographical area at the time this study was conducted. The researcher intended to study all four female principals in this area; however, the fourth principal declined an invitation to be part of this research study. Although she did not comment on the reasons, the researcher believes that refusal was connected with school climate issues resulting from the restructuring process occurring in the school at the time of the invitation.

The three principals who participated in this study warmly welcomed the researcher into their respective schools and their professional lives. They were interested in the research topic and facilitated the researcher's entry into the school culture validating both her presence and purpose. The researcher noted, on the first day, the positive and receptive school culture which existed in each of the research sites and suspects that this was connected with the positive relationship each principal seemed to enjoy with the staff.

Three case studies, reported as case narratives (Appendix C) and case reports (Chapter 4), portray each of three principals' individual administrative styles.

A cross-case analysis presents common themes, offers a brief composite of the three female principals in this study, and explores one theme, the context of care, in depth.

Data Collection

The general research approach is a naturalistic inquiry that employs qualitative methods. The aim of this approach is to give meaning to the whole by understanding how the parts work together within their natural setting. The approach involves the use of observation and intuition in order to gain a sense of what is occurring in the natural setting.

In this type of research, the focus is on process and meaning. What is happening? How and why is it happening? These are questions of process. What does this mean? How do I interpret the world and the events therein? These are questions of meaning. As the primary instrument for data collection and analysis, the researcher must be responsive to the

environment, to the context in which the phenomenon is occurring, and to nonverbal aspects occurring in the environment. The researcher must constantly adapt research techniques as factors and conditions change (Miriam, 1988).

The researcher conducted the investigation and collected data on site from interviews and observations with the principals and respective school staffs. Data collection included relevant school documents and records, which informed and contextualized the interviews and observations (Yin, 1984).

The researcher conducted one in-depth, unstructured interview with each principal on the topic of school administration. The unstructured format allowed for the emergence and exploration of leadership topics which the principals deemed important.

In addition, spontaneous informal interviews yielded additional information about focus topics relating to the administrative experience. Under this method of inquiry, the principal describes her experiences in her own words, in her own way. Probing questions elicit detail and rationale.

With each interview, the researcher conversed with the principal about leadership. Each principal was encouraged through the use of probing questions to expand upon her perspectives and experiences in school leadership (See Appendix H). Each interview typically began as the principal shared her background and experience including the events which led to her appointment. This provided the context for her administrative work which focused primarily on attending to staff and the community for the benefit of the students.

The primary advantage of this interview technique over other formats is its ability to allow each principal a large measure of control over the interview. This method conveys respect for both the importance of both the principal, as a leader, and the information. The principal herself is important as she exercises control in organizing her thoughts and feelings, which inform the research issue, in a manner suitable to her administrative frame of reference.

The researcher conducted formal observations of the principal within the administrative setting primarily through the shadowing technique for fifteen to twenty days. All transactions human (e.g., conversational exchanges) and non-human (e.g., documents, other paperwork) were recorded, transcribed, catalogued, and analyzed. These formal observations allowed for dialogue about the observed activities as well as expanded dialogue about the topics discussed in the interview.

The researcher conducted informal observations throughout the entire school organization, visiting classes, the cafeteria, the library, the hallways and grounds, staff lounges, and staff meeting areas.

In order to gain a more thorough understanding of the administrative team context within which the principal functions, the researcher conducted informal interviews and observations of the administrative team members.

The researcher inspected documents including the following: school yearbook, staff handbook, memoranda, correspondence from outside agencies (e.g., central office, public service and community agencies), self-study

reports, climate surveys, school newspapers, agendas, minutes from meetings, and city/county newspaper articles.

Informal observations, interviews, and document inspections provide rich contextual information about the principal and her administrative style. An analysis of this data provided a more comprehensive picture of the principal as well as the school culture.

<u>Pilot Study</u>

The purpose of the pilot case study was to guide and inform future data collection. It clarified the research question and data collection procedures. The pilot case not only fulfilled its purpose as a pilot, but it exceeded expectations in providing rich data for comparison and contrast with the other two cases. Because it fulfilled the research selection and inclusion criteria, the pilot case is included herein as the second case.

Data Management

The researcher managed all data meticulously. All data captured are associated by time of day, context, and participant(s). Information obtained from formal interviews was tape recorded and transcribed verbatim in typewritten form for analysis. This is also true for scripted data obtained from informal interviews, conversations, and observations.

Research notebooks housed information collected throughout the course of this study. A personal journal captured the researcher's feelings and attitudes about the research process. A tape recorder recorded research insights and guidelines as well as documenting oral accounts of events occurring at the field sites.

Given the amount of data and data manipulation, the software package <u>Ethnograph</u>, by Qualis Research Associates (1998), was selected to aid in the process of managing the data set and aid in the continuous restructuring. This software package assisted in the management of codes, code lists, memos, and code definitions.

Due to the enormity of the amount of data collected and the meticulous transcription, cataloguing, and analysis required coupled with the researcher's time demands from work and family, seven years elapsed from the time of data collection to defense. During this period, although there was no loss of data, there was some loss of work (which was all recovered) due to challenges involving the use of technology. The researcher worked with three versions of <u>Ethnograph</u>, three different internet browsers, and a variety of application software culminating in the use of <u>MS Office</u> (1997). The researcher survived two computer crashes which resulted in the acquisition of two new (and improved) computers during the course of study. Although frustrating, these challenges resulted in a more intimate connection with the data, thus, setting the stage for more comprehensive analysis and resonant reporting.

Data Analysis

An in-depth analysis of observation and interview data from each case provided the rationale and direction for analytic questioning and comparing of the data. Known in the field of research as the constant

comparative method of analysis, it is the heart of the grounded theory method. This approach to data analysis is rigorous and systematic. It attempts to "bring reality to light" through interpretation. The creativity of the researcher is a valued element in this process for the ability to identify pertinent questions regarding the data and to make comparisons (Strauss & Corbin, 1990).

The researcher analyzed each case in depth using an iterative process often referred to as the constant comparative method. This involved making comparisons and asking questions of the data in order to create concepts and categories. The value of this approach to data analysis lies in its emphasis upon the interactive nature of events. Comparisons between and among data yield insights and questions (Strauss and Corbin, 1990).

The researcher employed a variety of procedures to analyze a nd verify data. The first procedure was open coding. Open coding divided data into discrete behaviors or events. Axial coding rejoined the data (in ways different from how the data emerged in the field) using categories and subcategories. Selective coding systematically related the categories and subcategories, producing one core category around which the others were subordinated.

Stereotypical gender labels (e.g., masculine behavior, feminine behavior) were not used to identify behaviors. Such labeling would raise questions of bias and bound the data in ways which are antithetical to grounded theory methodology.

In addition to coding, the following supporting procedures were essential to a critical analysis: recording memos, creating diagrams, and event writing. These strategies were useful for developing insight into data relationships and articulating those relationships in order to formulate a story (Strauss and Corbin, 1990).

The interview data was compared and contrasted with the behavioral observation data in an attempt to verify each principal's perception of herself. In addition, interviews were conducted with selected staff members to verify both the researcher's and the principals' perceptions and observations. School documents were examined for their relevance in providing information not only about the principal, but also the school culture. Newspaper reports were examined for the same purpose.

Interpretation of data was carefully scrutinized through the use of sound qualitative procedures. Purposeful probing of the data included looking for negative evidence as well as consideration of rival explanations. Meticulous inclusion of multiple examples of behaviors confirmed representativeness. They are documented and reported in the case narratives (Appendix C) and case reports (Chapter 4). Selected samples of field data further document representative findings (Appendix H). Researcher objectivity was enhanced through the ongoing development of self-knowledge. This was garnered through personal experience as an assistant principal (in another district), through professional discussions with colleagues in the researcher's school district, as well as through the researcher's regular and frequent dialogue with her spiritual director.

Objectivity about analysis and interpretation was further enhanced by discussions with persons closely associated with the research endeavor. A mixed-gender study group of doctoral students provided analytic assistance

as well as emotional support. Discussions with the research advisor, the chair of the dissertation committee, as well members of the dissertation committee, provided insight, challenge, and direction to the research process. This type of collaboration ensures precision, dependability, and verification of data analysis (Merriam & Simpson, 1995; Miles & Huberman, 1994).

Theoretical sensitivity (Glaser and Strauss, 1967) concerns identifying what is important as well as what meaning data hold for research study purposes. In addition to connection with the literature, theoretical sensitivity developed through practices associated with experience with the phenomenon, recognition of experiential differentness, and continuous data interaction.

In order to provide legitimacy in phenomenon reality, Strauss and Corbin (1990) offer guidelines, which together with the theoretical sensitivity guidelines, assist in seeing meaning in the data, construct connections, and provide awareness of personal biases and beliefs. These guidelines include following collection and analytic techniques in keeping with sound qualitative methods, repeatedly question the meaning of the data, and remain open to alternative explanations of participants' beliefs and behavior.

Open Coding

Open coding (i.e., breaking down, examining, comparing, conceptualizing, and categorizing data) yields a large set of discrete descriptive behaviors (e.g., talking to teacher) associated with each case. These descriptive behaviors were categorized into conceptual categories and distinguished from one another by conceptual labels (e.g., conferring).

Because of the vast array of concepts that emerged during open coding, grouping is required. Through the use of analytic questioning strategies, coded data fell into groups called categories. The categories were grounded in the data.

An analysis of attributes (qualities) and conditions, associated with the identified categories, yielded the identification of broader-based phenomenon. This creates associative relationships among the categories. Higher levels of abstraction alter associations, subordinating some while elevating others. This process leads to axial coding.

Axial Coding

During axial coding, new categories, as well as new connections between and among categories, emerged. Whereas open coding fractures the data, axial coding puts the data back together again using existing or newly created categories and subcategories. Basic analytic procedures involved answering questions that compare and contrast data as well as recording memos and event writing.

Memos and Diagrams

Throughout the research process, memos and diagrams facilitate data analysis. Memos portray in writing the researcher's thinking about the data.

Diagrams, on the other hand, graphically portray relationships between concepts. The diagram format can be either scattered or linear.

Event Writing

Event writings are rich descriptions that attend to the question, "What is going on here?" Responses to questions beginning with who, when, what, where, and why serve to expand and contract categories as well as assist in conceptualizing a "whole" and its "parts".

Selective Coding

Selective coding is the process of selecting a core category, relating that category to the other categories, and checking for meaning through relationship. The core category is the central phenomenon around which all other categories are integrated.

After the raw data are fractured through open coding and reintegrated through the establishment of categories, connections, and event writing inherent in axial coding, selective coding facilitates the creation of a paradigm model.

Paradigm Models

The paradigm model portrayed the actions and interactions embedded in sets of conditions; these actions/interactions have consequences, which in turn affect the next set of actions/interactions (Strauss & Corbin, 1990).

These models (see Appendix F) were used to relate categories for the purpose of ordering them to identify a core category around which the other categories were developed. The ordered categories facilitated presentation of the data in an organized and meaningful manner in the case reports.

Meta-Matrix

The creation and use of a matrix facilitates understanding of the relationships among and between data within each case (Strauss & Corbin, 1990). It also provided a means by which to compare data across cases in order to identify common constructs and themes.

The meta-matrix of constructs (see Appendix D) expanded as analysis proceeded through the initial identification of categories, preparation of the case narratives and case reports. It was integral to the development of the cross-analysis and guided the content of the cross-case report.

<div align="center">Presentation</div>

Case narrative (see Appendix C) and case report (see Chapter IV) formats are a logical manner in which to present this study to maximize reader understanding and enjoyment. Descriptions illustrating behavior in this manner are an inviting and interesting venue through which to convey information. As this method presents three distinct principals and their administrative styles, readers are invited to compare and contrast them as distinct prototypes against which they may assess their own behavior.

The cross-case analysis, located in Chapter V, follows the three individual cases reported herein. It is a rich description of the common themes found in each of the three case studies.

Case Narratives

The research inquiry is addressed initially through a rich description of each of the three subject principals presented in a case narrative format (Appendix C). The case narrative is composed of related constructs identified by a variety of descriptive and conceptual labels. These constructs, referred to as processes in the narratives and identified by labels, are unique to each case.

The constructs are both defined and demonstrated through examples from the field notes; they clearly describe and delineate behavioral processes. For explanatory purposes, these processes are hierarchically associated through levels of abstraction as well as conceptual labeling thus creating an enriched initial code set upon which the case descriptions are based.

Analysis and synthesis of the behavioral processes contained in the narratives suggest the existence of a core category. Case reports prepared from each narrative identify a core category and reorder the other categories for further analysis.

Case Reports

Case reports, located in Chapter IV, synthesize each principal's behaviors, motives, and beliefs into a composite administrative style description. A paradigm logic model, using the constructs reported in the narratives, as well as newly identified constructs, relate the categories to each other identifying an administrative strategy. Although this model is recommended for use in explanatory studies, it is adapted here for use in theme analysis (Strauss & Corbin, 1990). By relating categories in this manner, higher levels of abstraction occur as phenomenon, conditions, context, and action form relationships through the structure of the paradigm model providing a solid framework for description (Appendix F).

A reanalysis of the original field notes, data analysis, coding memos, diagrams, and event writing yielded several new categories and suggested relationships not previously observed. Events previously not considered noteworthy now held interest and were included in the analysis.

Because the administrative style of each principal is unique, data from the three cases present independently in three different reports. Concepts from the narrative as well as newly identified concepts unite in the case report through an interpretive framework called the paradigm logic model. The core category became the central category of interest as the other constructs subordinated to it.

Cross-case Analysis

The cross-case analysis compares the three independent case studies in order to identify common themes among the cases while simultaneously addressing the exploratory research questions relating to gender and administrative style.

A meta-matrix chart provided visual displays that ordered data in ways that allowed for constant comparison (Appendix D). Several data analysis tactics provided the means to manipulate the categories identified during the independent case study analysis. These included: identifying patterns and themes, partitioning, clustering, making metaphors, counting, subsuming, and relating variables (Miles & Huberman, 1994).

Relating processes enabled connections to be made between categories, thereby enriching description. Patterns and themes were identified using a constant comparative analytic strategy. Partitioning divided the data into meaningful groups, which facilitated comparison. Clustering reduced the data into progressively more refined, case-level data allowing for the emergence of short quotes, abbreviated descriptions, summarizing phrases, and symbols. Making metaphors reduced the data to succinctly explain complex phenomenon (e.g., "open door policy"). Counting provided a means to reduce data and verify hunches while subsuming grouped discrete categories into larger, higher-ordered conceptual categories.

The cross-case findings are reported in Chapter V. A detailed description of the cross-case analysis procedures and findings can be found there. In addition to the findings reported in Chapter V, a cross-case description is reported in the format of an abbreviated case report. The cross-case description features a hypothetical principal constructed from the common constructs and categories identified in the case narratives and case reports (Appendix E). In addition, one significant category, identified as the "context of care", is reported in Appendix G.