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**A MEASURE OF PERCEIVED POWER IN INFLUENCING
CHANGE AMONG SELECTED EDUCATION
PARTICIPANTS IN ALBERTA**

by

Frederick Arnold Preston

**A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education**

University of San Diego

1997

Dissertation Committee

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Edward DeRoche, Ph.D.
Robert Infantino, Ed.D.**

ABSTRACT OF THE DISSERTATION

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG SELECTED EDUCATION PARTICIPANTS IN ALBERTA

The educational landscape in the province of Alberta is undergoing change. The government's agenda includes changes in funding, reducing the number of school jurisdictions and local school boards, the provincial appointment of superintendents, increasing school-based decision making and accountability, and increasing parent, community, and business involvement in the delivery of education. It is expected that these changes will be completed during 1997.

Considering the climate of change in Alberta education, it is of paramount importance that in the implementation process, participants in the change recognize their personal power to operationalize what is proposed. Government legislation can demand compliance, but without the commitment of Alberta trustees, superintendents, principals, and school advisory council presidents, change in education may remain on paper only.

Power, defined as the capacity to knowingly participate in change, provides the theoretical basis for the assessment of the perceived power in influencing change among Alberta trustees, superintendents, principals, and school advisory council presidents. The synergistic interrelation of the concepts of awareness,

choice, freedom to act intentionally, and involvement in creating change constitutes the theory of power whereby human beings participate in the innovative creation of their reality. Assessing the degree of knowing participation in change of the groups selected may serve as an indicator of their commitment to change in the province of Alberta.

The results of the study indicated that school advisory council presidents had the most perceived power, followed by principals and trustees. Superintendents felt the least power.

The personal variables of age and gender influenced the awareness and choice of trustees. Female trustees were more aware of education change and recognized more choices than did male trustees. Older trustees felt more freedom to act intentionally than did their younger counterparts. The study also indicated that female principals were more aware of change than male principals.

The institutional variables influencing the perceived power of the groups studied were size, type of jurisdiction, and position. Trustees in smaller jurisdictions felt less power than trustees in larger jurisdictions. Trustees in divisions felt less power than those in districts. School advisory council presidents felt more powerful in terms of choice than did superintendents.

DEDICATION

This dissertation is dedicated to my parents: to my late mother, Gwendolyn Mina Preston who always believed I could accomplish anything I set my heart and mind to do; to my late father, Dr. Frederick Theodore Preston, M.D., F.R.C.S., who served as my model of tenacity to endure. They would have been proud of this accomplishment.

ACKNOWLEDGMENTS

This difficult undertaking could never have been accomplished without the guidance and assistance of many individuals. I would like to thank Dr. William Piland who acted as my Chair, and who gave me the freedom, the encouragement, and the support I needed to bring this work to a successful completion. My thanks to Dr. Edward DeRoche and Dr. Robert Infantino for their knowledgeable suggestions and advice.

A debt of gratitude is owed to my colleagues and friends who listened with a sympathetic ear, gave freely of their time, and never allowed me to forget the focus of this work. Their perceived power continuously raised my awareness, offered me choices, and allowed me the freedom to act intentionally in my personal involvement in creating change in my life.

I wish to thank my competent, understanding, and patient typists. To Gladi who anchored the first lap, and to Jenny who brought me through the home stretch, I am grateful.

This entire endeavor could never have been dreamed of or completed without the unwavering faith of my wife, Barbara, and my daughter, Amanda. I thank them for their love and commitment.

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CHAPTER I

INTRODUCTION

Background

"Power has been the subject of discussion for 25 centuries" (Dahl, 1968, p. 406). Formal investigations of power can be traced to the mid-nineteenth century, but systematic measures of power have emerged almost entirely in the past four decades (Dahl, 1957, 1968; Jacobson, 1972).

Traditional views of power are fraught with ambiguity since power is defined differently by each researcher. None of the authorities defined power in the same words (Burns, 1978; Etzioni, 1961; French & Raven, 1959; Gardner, 1990; Nyberg, 1981; Russell, 1969; Yukl, 1981). Although traditional studies of power hold both similarities and differences, these similarities and differences lie in the definitions offered and in the sources of power. In the traditional power literature, power is explored from a causal, reductionistic, closed system, dichotomous, linear view of human-environment interactions (Barrett, 1983; Wheatley, 1994). Such causal analyses of power are Newtonian models based on the analogy of force in classical mechanics (Dahl, 1968).

A stark departure from the traditional view of power was offered by Barrett (1986). Based upon M. Rogers' model of "unitary human beings," Barrett offered a definition of power relevant for the non-causal, open system, mutual human-environment interactions. Power was defined as the capacity to "participate

knowingly in the nature of change. Measures of power consequently reflect ambiguity" (Barrett, 1986, p. 56).

M. Rogers' (1970, 1986) science of unitary human beings postulated that humans can knowingly participate in change. Barrett's (1983, 1986) power theory proposed that power is the way humans knowingly participate in creating their reality by actualizing some potentials for unitary change rather than others. Power was defined as the capacity to participate knowingly in the nature of change characterizing the continuous patterning of the human and environmental fields as manifested by awareness, choices, freedom to act intentionally, and involvement in creating changes. The methodological focus of Barrett's research concerned development of an instrument to measure this theoretical power construct.

Bugental (1965), Dubos (1972), Frankl (1988), Muller (1970), Olsen (1970), Rogers, C. (1977), and Wheeler, Thorne, and Misner (1973) support knowing participation in change as the major axiom in Barrett's (1986) power theory. Humans are not bystanders; they are participants in experience (Bugental, 1965). Therefore, change is the central theme throughout the power literature.

Life is a flow of experience. To be alive is to experience this flow, thus, to move and to change (Csikszentmihalyi, 1990). To change is to become irreversibly more complex, diverse, and differentiated in pattern (C. Rogers, 1977). The human being has many potentials, some of which will be actualized. Moreover, human beings can knowingly participate in changing the human and environmental fields (M. Rogers, 1970).

Purpose of the Study

The purpose of this study was to measure power as the degree of knowing participation in change among Alberta trustees, superintendents, principals, and school advisory council presidents. The instrument, Power as Knowing Participation in Change Tool VII (PKPCT VII), provided a measure for a power comparison of the degree of knowing participation in change between and among these selected groups. The degree of knowing participation in change involves the capacity of individual participants to influence and activate resources to obtain desired results, both innovative and probabilistic in nature. The study determined if the personal variables of gender, age, years of experience, and institutional variables of type, size, position, and school configuration (grade level) influenced the knowing participation in change. The study was also designed to determine whether there was a correlation between personal and institutional variables and perceived power as knowing participation in change manifested by awareness, choice, freedom to act intentionally, and involvement in creating change.

The measure of power of individuals within the selected groups indicated their ability to be meaningfully involved (Barrett, 1986). Subsequent organizational interventions and re-evaluations by local school jurisdictions, Alberta Education and other researchers later may be compared against the established data and analyses in this study.

Statement of the Problem

Change is an integral part of the life process and a recurrent theme in the power literature. The degree of an individual's knowing participation in change is a

powerful concept to bring proposed changes to fruition. Education in Canada is the constitutional responsibility of provincial governments. As such, it is within provincial jurisdiction to propose changes in educational policy and procedure. Implementation, however, lies with the individuals directly involved in the field (Fullan, 1982). The individual's perception of power as awareness, choices, freedom to act intentionally, and involvement in creating changes is paramount to effective implementation of real, intended change (Barrett, 1983).

In June, 1993, the people of Alberta reelected the provincial Progressive Conservative Party to power under a new leader, Ralph Klein. In the wake of the past Progressive Conservative premier and changing conditions on a worldwide level, Klein inherited a province in severe economic distress. In light of new economic realities, the Klein government proposed to tackle the major areas of government expenditure, health care and education, in an effort to make them more efficient and fiscally viable.

On January 18, 1994, Klein's Minister of Education, Halvar Johnson, issued a news release, to Albertans outlining his proposed changes to education in the Province of Alberta. The news release, titled "Restructuring Education," proposed "a major restructuring of Alberta's education system." The change would ensure adequate funding for basic education, resolve fiscal disparities among school jurisdictions, control costs, and make the education system more accountable. Johnson stated that "focusing education resources on students in the classroom, giving more authority to schools and parents, lowering administrative costs and instituting a fairer system of funding are the key principles guiding this restructuring of education" (Johnson, 1994,

p. A2). As a result, the provincial government assumed full responsibility for the funding of elementary and secondary education to public and separate school boards. Previously, educational funding was a joint responsibility of the provincial government and school jurisdictions with the province funding approximately 58% of the total expenditures; school boards were to raise the remainder through requisition against local property assessments. Johnson further stated in his news release:

During our education consultations Albertans told us that quality education, fiscal equity, accountability, and cost control were the essential considerations in determining future directions for education in the province. Full provincial funding of education will ensure adequate funding for basic education, resolve the problem of fiscal inequity among school jurisdictions, allow for improved cost control and assist with the major restructuring of the educational system.

(p. A2)

The government introduced legislation to implement the plan. In the 1994 tax year, the provincial government collected and redistributed all property taxes to fund education and will phase in uniform mill rates for all properties by 1997. School boards no longer requisition local resources. Johnson added:

Moving to full provincial funding for education was seen as the most effective and responsible way to make the major changes to the system that are required to meet the needs of students. It will allow all Alberta students access to a quality education as inequities among school jurisdictions will be removed through reallocation of resources. (p. A3)

The restructuring plan for education also included:

1. Reducing the number of school boards in Alberta from over 140 to approximately 60.
2. Phasing in the appointment of all school superintendents by Alberta Education.
3. Giving schools more authority in deploying resources and determining how results are achieved, thus allowing greater school-based decision making and school accountability for the results achieved.
4. Increasing involvement of parents, the community and business in the delivery of education.

It is expected that restructuring will be completed during 1997. The proposed changes to education in the province of Alberta will have a profound effect on the work of trustees, superintendents, principals, and school advisory councils. Trustees have lost the ability to levy taxes at the local level. The relationship between the superintendent and the local board has been affected. The superintendent will be hired by the board, but only on the approval of the Minister. Principals have been charged with increased fiscal responsibility for the operation of their schools, but they must appeal to a wider audience of teachers, school advisory councils and the community at large in the decision making process. School advisory councils have been allotted duties and responsibilities which could decidedly influence the actual operation of schools. Within the context of education in Alberta, a constant state of flux and transformation will occur. To make these changes effective individuals need to be aware of their involvement in creating the changes (Fullan, 1982).

Assumptions of the Study

Several assumptions made regarding this investigation were as follows:

1. The researcher assumed that all respondents to the test instrument answered with integrity, without bias, and to the best of their ability, yielding a true indication of the perceived power factors.
2. The researcher assumed that the subjects embraced the essence and intent of the study and approached the test instrument with integrity and enthusiasm.
3. The researcher assumed that the underlying power theories (Barrett, 1983, 1986; Rogers, C., 1977; Rogers, M., 1970, 1986) were appropriate among the groups studied based upon the previous research done using the PKPCT VII instrument.

Theoretical Rationale

In the development of Power as Knowing Participation in Change Tool, Barrett (1983) focused on the concept of helicy as the unifying principle that incorporated power and human field motion. Helicy concerned the nature and direction of change. It was operationalized in Barrett's (1983) study by the variables of power and human field motion which were both behavioral indicators of human change.

Power was viewed by M. Rogers (1986) and Barrett (1983) as concerning a change in participation in the creation of an individual's reality; helicy was defined as an indicator of the direction of the change in the human field motion. Power is the dynamic descriptor of the way human beings interact with their environment to actualize some developmental potentials rather than others. Within this concept,

Barrett (1983) explored the hypothesized relationship of human field motion and power.

Barrett (1983) conceived power as a manifestation of the human field motion and environmental pattern that emerges out of the mutual interaction. As such, Barrett's study was directed to the empirical investigation of power as a human field manifestation perceived in relation to the human and environmental fields. It was postulated that power is the same phenomenon, regardless of the perspective from which one views it. M. Rogers (1986) and Barrett (1983) saw power as a non-causal phenomenon whereby the human-environment interaction is a mutual process in which both fields continuously participate in change. Barrett's (1983) contention was that power existed as a natural human development potential in either a latent or manifest capacity. Power was manifested in a diversity of forms which was neither intrinsically good or evil.

Power viewed empirically as a state-trait phenomenon means that its state nature is represented in the momentary, continuously changing human and environmental field pattern; its trait nature is represented in the consistency of human and environmental field pattern. As a unitary being, the human experiences the cognizant activity of power. For Barrett (1983) this synergistic experience was an affective feeling of strength, a volitional and cognitive recognition of choices and behavioral activity in which outcomes are innovative, creative, and probabilistic. The intensity, frequency, and form of the manifested power varied, but regardless of the manifest power form, behaviors consistent with M. Rogers' (1977) conceptual system can be further specified and operationalized. Those field behaviors include awareness,

choices, freedom to act intentionally, and involvement in creating changes (M. Rogers, 1986). Those behaviors specified a power theory that endorses mutual, simultaneous processes and questioned causality, domination, and control (Barrett, 1983). Knowing participation is being aware of what one chooses to do, feeling free to do it, and doing it intentionally. Power is viewed as relative in that the felt cognizant activity can be manifested in a variety of forms.

Human field motion was developed within the Rogerian framework. Human field motion is the perceptual experience of motion and an index of unitary human development that manifested the continuously moving position and flow of the human field pattern or helicy (Barrett, 1983). It was more than and different from particulate notions of motion; the transcendent characteristics of human field motion were unitary. Barrett (1983) postulated that, as a four-dimensional experience of position, human field motion was an indicator of the continuously moving position and flow of the human field pattern. As an indicator of unitary human development, human field motion was a human experience of process, change, and wave frequency transcending time and space as well as movement and stillness. Human field motion reflected the dynamic interaction of the human field integral with the environment.

According to Barrett's (1983) power theory, there is an active involvement and dynamic flow of movement of the human field integral with the environmental field. Since human field motion is an index of unitary human development (Ference, 1979), it seems logical to propose that, as development proceeds, so does the capacity to participate knowingly in change. Higher frequency power characterizes development of the human field which has evolved further in the direction of accelerated motion.

Delineation of the Research Problem

Rost (1991) suggested that real, intended change should be brought about through influence relationships. Alberta Education will require the active support and participation of all stakeholders in the field of education to bring about the proposed changes in the province's educational system. It is the contention of the researcher that this support and participation can be anticipated through the participant's perceived power to bring about these changes.

Considering the major educational changes proposed by Alberta Education, it is of paramount importance that, in the implementation of these changes, participants in the proposed change must recognize their personal power as manifested by awareness, choices, freedom to act intentionally, and involvement in creating change in order to operationalize what has been proposed. Without the active participation of trustees, superintendents, principals, and school advisory councils, educational change in the province of Alberta may remain on paper only. It is important that to operationalize real, intended change, all participants must actualize their potential to be aware, recognize their choice, act intentionally, and participate in the change if change is to be meaningful and effective.

To date, there is no research regarding power, as defined by Barrett (1983) in the field of education. This research is undertaken to provide an alternative to traditional measures of power, to provide a baseline measure of power within Barrett's (1986) definition, and to further the existing body of knowledge regarding power in the field of education.

Statement of the Hypotheses

Three research questions guided this investigation:

1. What is the perceived power of selected education participants in Alberta in influencing change at the onset of important educational changes mandated by Alberta Education?
2. What differences in perceived power exist among selected education participants in Alberta based on personal (age, gender, years of experience) and institutional (position, size, type, and school configuration [grade level]) variables?
3. What personal and institutional factors contribute to the perceived power of selected education participants in Alberta?

Based on a review of the literature and personal experiences in the Alberta educational arena, the following hypotheses were generated (Alpha = .05 was used in all tests of statistical significance):

Hypothesis 1: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents.

Hypothesis 2: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents based on the size of the jurisdiction.

Hypothesis 3: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and size of jurisdictions.

Hypothesis 4: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and district or division jurisdictions.

Hypothesis 5: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and district or division jurisdictions.

Hypothesis 6: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and age.

Hypothesis 7: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and age.

Hypothesis 8: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and gender.

Hypothesis 9: There is no significant difference in the perceived power of the selected groups on the sub categories of awareness, choice, freedom to act intentionally, and involvement in change and gender.

Hypothesis 10: There is no significant difference in the perceived power of the selected groups on each of the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change identified in the instrument (PKPCT V--II).

Hypothesis 11: There is no correlation between institutional factors of size, position, and school configuration (grade level), and personal factors of age, years of experience, and the measure of perceived power.

Importance of the Study

Based upon M. Rogers' (1980) conceptual framework of unitary human beings and Barrett's (1983) proffered definition of power, it seems reasonable to assume that a measure of power derived from Barrett's definition may accurately reflect the potential for real, intended change in the field of education in the province of Alberta. The study offers a departure from traditional measures of power motivation (Good & Good, 1972; Uleman, 1966; Winter, 1973). It refocuses the measure of power away from the traditional causal, reductionistic, closed system, dichotomous, linear view of human-environment interactions to a measure of power as a causal, open system, mutual human-environment interactions. Individuals who perceive themselves as being aware of what they are choosing to do, feeling free to do it, and doing it intentionally are participating in change. Covey (1994) reiterates Barrett's conception of power:

In the most fundamental sense (be proactive) is the awareness of this space between stimulus and response--between what has happened to us and our response to it. Next to life itself, this self-awareness and our freedom to choose, to direct our lives, is our most precious gift and power. (1994, p. iii)

The greater the individual's perception of power, the more likely the effectiveness of the change (Fullan, 1982; Hoy & Miskel, 1987; McWhinney, 1992; Senge, 1990; Sergiovanni, 1992).

This study examined the degree of awareness, choice, freedom to act intentionally, and involvement in creating change of superintendents, board chairpersons, principals, and presidents of school advisory councils. Achieving a measure of the perception of power would be indicative of these educational participants' potential to make a difference in the creation of their reality and to bring about real, intended change.

The study has implications for the participants in the field of education. Consciousness regarding power made manifest by awareness, choices, freedom to act intentionally, and involvement in creating changes can enhance the efforts of participants in the field of education to exercise rights and responsibilities for knowledgeable, meaningful participation in repatterning the educational system in the province of Alberta. From this broader perspective, power involves the capacity to influence and mobilize the resources of board chairpersons, superintendents, principals, and school advisory councils to attain desired outcomes, probabilistic and innovative in nature. For this reason, it is essential to establish a measure of the perceived power each of these participants possess in order to assess their abilities to become meaningfully involved with educational changes in the province of Alberta.

Definition of Terms

Districts and divisions. These are the political structures of education governance in the province of Alberta pursuant to the Municipal and School Administration Act established at the pleasure of the Lieutenant Governor in Council on the advice of the Minister of Municipal Affairs or the Minister of Education. A

school district is usually associated with a city. Divisions are usually associated with rural areas of varying sizes. Both districts and divisions have boards of trustees.

Power-as-Knowing-Participation-in-Change Tool (PKPCT V--II). This tool was initially developed by Barrett in 1983 and revised in the mid- 1980s. The instrument measures the four power concepts of awareness, choice, freedom to act intentionally, and involvement in creating changes.

Power. Power is defined as the capacity to participate knowingly in the nature of change characterizing the continuous patterning of the human and environmental fields as manifested by awareness, choices, freedom to act intentionally, and involvement in creating changes (Barrett, 1983, 1986).

Delimitations of the Study

The population of this study was limited to English-speaking men and women who were working as stakeholders in the field of education as an Alberta school trustee, a superintendent, a school administrator, or as a president of a school advisory council.

Limitations of the Study

The following limitations of the study were identified:

1. The generalizability of the study was limited to the trustees, superintendents, principals, and school advisory council presidents in the province of Alberta.

2. The study was limited to a one-time application of the testing tool.

Therefore, the study would not determine the extent of improvement or regression

that may accompany any intervention strategies initiated by the provincial government.

3. The study was limited to the quantitative evaluation of power as knowing participation in change of current members of the identified groups being studied. Richness and depth of response afforded by a more qualitative research effort was not undertaken. Therefore, the possibility exists that some meaningful aspects of the perceived power as knowing participation in change of the identified groups may not be identified.

4. The study was limited to the four power concepts of awareness, choice, freedom to act intentionally, and involvement in creating changes and the total factor scores of these power concepts.

5. Triangulation of the power ratings was limited to the self-reported data obtained through the use of the PKPCT V--II, instrument.

6. The study was further limited as the data collected were based on the self-report of perceptions by trustees, superintendents, principals, and school advisory council members. People create their own realities based upon their perceptions of the world around them. Each person filters information and stimuli based on their created reality. Self-report has been used in many research efforts as an accurate way of determining how individuals perceive the world. As the current study investigated the identified group's attitudes towards power, the reliance on self-report was appropriate for the study. The self-report format did, however, limit the generalizability of the study, since the groups surveyed were not subjected to the same environmental stimuli.

Outline of the Dissertation

Chapter I presented an overview of the research problem and related background to the issue to be investigated in the study. Eleven null hypotheses were described, as were the assumptions under which the study was conducted and the limitations encountered in the research project. Chapter II presents a review of the related literature pertinent to an understanding of traditional power and how traditional power works. The chapter also introduces key concepts involved in the understanding of M. Rogers' (1980) science of unitary human beings and Barrett's (1983, 1986) theory of power. Chapter III outlines the methodological framework of the study in terms of the research design, subject population, instrumentation, survey protocol, data collection and analyses, methodological assumptions, and limitations of the methodology. Chapter IV presents the data analysis and the findings of the research. This chapter features a discussion of the results as well as a presentation of representative tables, charts, and graphs to assist in the illustration of the findings of the research. Chapter V presents a summary of the findings of the research project. The implications for the various stakeholders in education in the province of Alberta are set forth. Conclusions that can be drawn from the research are also discussed in this chapter. The dissertation concludes with recommendations for future research and study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This review of the literature examines power from the traditional view and presents an alternative perspective which dramatically challenges the traditional and which affords a measure of power radically different from traditional measurements.

In this chapter traditional power literature is examined from a psychosocial, political, economic (control of resources), and organizational viewpoint. This chapter also analyzes how traditional power works according to Blanke's (1980) power strategy style theory which synthesizes and expands concepts of how traditional power operates.

Finally, also presented is a view of power conceived within the Rogerian (Rogers, 1980) framework of unitary man. This view examines the measure of power as derived by Barrett (1983, 1986) within that framework. While the review is not exhaustive, it is representative of historical and current power theory.

Traditional Views of Power

Power has been described as a basic social process (Nyberg, 1981; Russell 1969); to help clarify the phenomena of social influence (Bass & Stodgill, 1990; French & Raven, 1959; Giddens, 1984); to explain domination in social interaction (Caracheo, 1988; Jacobs, 1970; Rost, 1991; Weber, 1957). Power has been defined and utilized as a framework for discussing political science (Lasswell & Kaplan,

1957) and politics and influence (Pfeffer, 1992). Power has assisted in the classification of organizations (Etzioni, 1961); power figures prominently in discussions of leadership (Burns, 1978; Gardner, 1990; Yukl, 1981). Kanter (1977) approached power in terms of gender and a comprehensive discussion of such power. Helgesen (1990) and Shakeshaft (1987) discussed power in a "different voice" (Gilligan, 1982) as part of the decision-making process, while Pinderhughes (1989) described power from the perspective of social services.

Power as a Basic Social Process

The word "power" means "to be able," to have the capacity or ability to do something (Wagner, 1969, p. 3). Russell (1969) contributed significant insights on power from a political, economic, and military perspective. Perhaps his most significant contribution was the assertion that power was the fundamental concept in social science "in the same sense in which energy is the fundamental concept in physics" (p. 12). He traced many historical events to the exercise of power to support that assertion. Russell's early classification of power provided a basic understanding of types of organizations and manner of influence. He defined power as the production of intended effects and suggested two categories of power: power over human beings and power over dead matter. Power over human beings was further classified into manner of influence and type of organization involved (p. 12). He noted that organizations are distinguishable by the kind of power exerted and that organizations utilize combinations of influence to produce intended effects.

Nyberg (1981) did not define power; rather, he described power as being instrumental, social, and psychological. The instrumental aspect of power is most

easily understood in relation to the philosophy of pragmatism, a focus on intelligently controlled purposive action in a social context, and focus on planned effort to produce intended consequences in that context. Pragmatism emphasizes the thinking person's ability to imagine circumstances that do not yet exist, to plan the realization of what has been imagined, and to achieve the planned set of circumstances through cooperation of others. Pragmatism is the philosophy of power (p. 58).

Like Russell (1969), Nyberg (1981) supported the notion that power is a fundamental concept in social science, if not *the* fundamental concept. Nyberg also suggested that whenever two people are related in a relevant way to at least one intended action, power was present as a facet of that relationship. Power, then, requires two conditions: at least two people and a plan for action (p. 61).

Power also had psychological implications for Nyberg (1981). One of the persons must intend an action and have a plan to do something, which requires the mental activities of foresight, degree of organization, and control of information. The other person's mental activity included some form of consent to the planner and to the plan to do something. The relation between one's intention to act and the other's consent to that intention is a crucial variable in power theory for Nyberg (1981). Both Russell (1969) and Nyberg (1981) typically view power as force or coercion.

Power as Social Influence

Conceptions of social power have focused primarily on process or outcome (Pollard & Mitchell, 1972). French and Raven (1959) identified and defined five major types of power to explain many of the phenomena of social influence. Social

influence was defined as the influence of a social agent (O) on a person (P), where O might be a person, role, norm, or group. The strength of power the social agent (O) over the person (P), O/P, was defined as the maximum potential ability of O to influence P.

French and Raven (1959) conceptualized five bases of power resting upon what determined the reactions of the recipient (P) of the agent's (O) behavior. These power bases were: reward power, based on P's perception of O's ability to mediate rewards for him; coercive power, based on P's perception of O's ability to mediate punishment for him; legitimate power, based on P's perception of O's legitimate right to prescribe behavior for him; referent power, based on P's identification with O; and expert power, based on the perception that O has some special knowledge or expertise.

Bass and Stogdill (1990) summarized findings on French and Raven's (1959) five bases of power. Followers sought to be liked by leaders with referent and reward power; they usually found leaders who use coercive power less attractive than they did those who used other forms of power, although the threat of punishment tended to induce compliance. Followers tended to respond to reward power either by developing contractual agreements or by forming coalitions that tended to equalize the bargaining positions of participants. Appointment or election to a position tended to legitimate acquisition of a position to a greater degree than did the acquisition of a position by force (Bass & Stogdill, 1990).

Giddens' (1984) new paradigm of social action, structuration, focused, in part, upon the issue of power and constraint. Giddens posited a duality of action and structure.

Action is shaped by structure but at the same time action produces and reproduces structure. The two are ontologically linked. There is no structure independent of actors who produce it, and there is no social action, free floating and independent of structure. Structure is both the medium and the product of action. (Starratt, 1993, p. 26)

Giddens (1984) posited three levels of consciousness: (a) unconscious consciousness, (b) practical consciousness, and (c) discursive consciousness. Unconscious consciousness represents aspects of psychic life that have been repressed or forgotten. Practical consciousness is how one continually makes sense of the stream of experience and activity and carries the social action forward by reflexive monitoring of the action. Language, facial expressions, tone of voice, and inflection are examples of practical consciousness. Discursive consciousness enables one to give reasons for what one says or does.

Unlike other sociologists, Giddens (1984) asserted structures are enablers and constrainers. Every situation imposes constraints of some sort on actions, yet every situation offers opportunities for action as well. Human agents face the paradox of exercising creativity in situations through the potentials within the very constraints to possible actions (Starratt, 1993, p. 28).

Closely connected to Giddens' (1984) concept of structure is his notion of power. Power is the ability to make a difference in a social situation, to act otherwise

than what the contexts might suggest. But it is also the ability to reproduce the context and the ability to leave one's mark on the social setting. Power is exercised by the agent reproducing the structure. Whether one acts in opposition to or in conformity to routines, the action is an exercise of power. Structure constrains power but also enables its exercise (Starratt, 1993).

Power as Domination in Social Interaction

Power has been examined as an integral component of aspects of social interaction. Weber (1957) asserts that power is an aspect of most, if not all, social interactions. He defined power as the possibility of imposing one's will upon the behavior of other persons. Of special interest to Weber was power that derived from established authority that allocated the right to command and the duty to obey. For Weber the authoritarian power of command was identical to domination.

Weber (1957) identified three types of domination in social interaction: (a) legal domination, (b) traditional domination, and (c) charismatic domination. Legal domination derived from a belief in rule by law. Superiors were obligated to support the rules and subjects were to obey the rules, not the rulers. Traditional domination was derived from a belief in sacred tradition that laws vested in authoritative positions gave those in these positions the right to rule. Charismatic domination derived from a belief in the supernatural powers of a leader such as magical qualities, extraordinary heroism, or other uncommon gifts. These three types of domination provided for acceptable social domination in social interactions. Missing from Weber's perspectives on power is participation in decision making, which is clearly one of the cornerstones of bringing about effective change.

Further examination of the conceptualization of domination in social interaction was carried out by Caracheo (1985). He defined power as a force that determines behavioral outcomes in an intended direction in a situation involving human interaction. Authority and prestige are the two and only bases of power. Authority is defined as the capability of exercising power by virtue of holding an established position within a social institution while prestige is defined as the capability to exercise power because one possesses either natural or acquired personal characteristics such as candor and expertise that are valued by others.

Caracheo (1985) contended that all characteristics that contribute to prestige can be encompassed in four categories: (a) knowledge, (b) moral character, (c) physical attributes, and (d) human relation skills. Both authority and prestige can be exercised through coercion or persuasion.

Power as a Framework of Political Science and Political Influence

Power has been defined and utilized as a framework for discussing political science. Lasswell and Kaplan (1957) discussed power from a political science perspective while Pfeffer (1992) asserted that politics and influence were the ways in which power was utilized. Lasswell and Kaplan defined power as participation in the making of decisions and strongly suggested that power was the most fundamental concept of political science. Power can be understood by an explanation of its weight, scope, and domain. The weight of power is the degree of participation in the making of decisions. The scope of power consists of the values whose shaping and enjoyment are controlled. These values include power itself, respect, rectitude, affection,

well-being, wealth, skill, and enlightenment. Power's domain consists of the persons over whom power is exercised. Weight, scope, and domain enter into the notion of amount of power an individual may possess.

Pfeffer (1992) asserted that power is an important social process that is often required to get things accomplished in interdependent systems. Power is defined as the potential ability to influence behavior, to change the course of events, to overcome resistance, and to get people to do things they otherwise would not do (p. 30).

Pfeffer (1992) contended politics and influence are the processes, the actions, and behaviors through which potential power is utilized and realized. Three sources of power were identified: (a) personal attributes, (b) organizational structure, and (c) situational requirements. Personal attributes such as competence, popularity, and aggressiveness can be sources of power but often are overattributed to power. Structurally, power derives from control over resources, ties to powerful others, and from formal authority by virtue of one's position in the hierarchy. Pfeffer asserted that an important source of power is the match between style, skill, and capacities and what is required by the situation—the fit between situational requirements and personal traits (p. 78).

Power and Classification of Organizations

Etzioni (1961) used power and involvement as a basis for classifying organizations. Power was defined by Etzioni as an actor's ability to induce or influence another actor to carry out his/her intentions or any other norms he or she supported (p. 20). Power was classified as: (a) coercive, (b) remunerative, and (c)

normative. One or more, or a combination of all three may be used by an actor to make another actor comply. Coercive and remunerative power are primarily similar to discussions put forth earlier. Normative power is based on the manipulation of esteem, prestige, and ritualistic symbols such as the flag or benediction (p. 24). Etzioni theorized organizations tended to specialize in one of the three types of power.

Involvement referred to orientation of the lower participant to organizational power and was classified as: (a) alienative, (b) calculative, or (c) moral (Etzioni, 1961). Alienative involvement designates an intense negative orientation to organization power and is predominant when coercive power is used. Calculative involvement designates either a positive or negative orientation of low intensity and is predominant when remunerative power is utilized, for example, blue-collar and white-collar industries. Moral involvement designates a positive orientation of high intensity and is predominant when normative power is employed. Religious organizations and universities are examples of this type of organization.

Power and Leadership

Power has been addressed as an integral part of leadership. Rost (1991) defined power as a relationship wherein certain people control other people by rewards and/or punishment (p. 106). Both authority and power relationships can be coercive. Rost asserted that coercion is not only an acceptable behavior in authority and power relationships, it is often essential if the relationship is going to be productive or effective. Leadership is noncoercive, meaning that it is not based on authority, power, or dictatorial actions. Rather, leadership is based on persuasive

behaviors which allow anyone in the relationship to freely agree or disagree and ultimately drop into or out of the relationship (p. 107).

Jacobs (1970) felt it was of the utmost importance to distinguish between the concepts of leadership, power, and authority. Power is defined as the capacity to deprive another of needed satisfactions or benefits, or to inflict "costs" on the person for noncompliance with an influence attempt (p. 230).

Burns (1978), Yukl (1981), and Gardner (1990) each defined power, distinguished it from leadership, and identified sources of power. Burns (1978) contended that to understand the nature of leadership, an understanding of the essence of power is required as leadership is a special form of power (p. 12). A psychological conception of power provided a basis for understanding the relationship of power to leadership. Burns viewed power as a process in which power holders (P), possessing certain motives and goals, have the capacity to secure changes in the behavior of a respondent (R), human or animal, and in the environment, by utilizing resources in their power base, including factors of skill relative to the targets of their power-wielding and necessary to secure such changes (p. 13). The two essential elements of power included motive and resources, and the two were interrelated; lacking motive, resources diminish, and lacking resources, motive lies idle.

An essential concept of power is the role of purpose. Purpose delineates power from leadership and is exercised to realize the purposes of the power holder, whether or not these are also purposes of the respondents, while leadership is exercised in order to realize purposes mutually held by both leaders and followers (Burns, 1978, p. 13).

Burns did not classify power into various categories but indicated that it takes many forms such as the policeman's badge, money, sex appeal, charisma, administrative regulation and authority (p. 17). The forms of power must be relevant to the motivations of the power recipients in order to secure changes in the behavior of a respondent.

Yukl (1981) discussed influence processes and power relationships as important elements of leadership. Understanding influence is paramount in Yukl's definition of power. Yukl defined influence as the effect of one party (agent) on another (target) (p. 220). Influence attempts by the agent can result in three outcomes with the target: (a) commitment, (b) compliance, or (c) resistance.

Yukl (1981) defined power as an agent's capacity to influence unilaterally the attitudes and behavior of one or more designated target persons in a desirable direction (p. 220). Yukl outlined sources of power in organizations as position power, personal power, and political power. Position power includes: (a) formal authority, (b) control over resources and rewards, (c) control over punishments, (d) control over information, and (d) ecological control. Personal power includes: (a) expertise, (b) friendship/loyalty, and (c) charisma. Political power includes: (a) control over decision processes, (b) coalitions, and (c) cooptation. Position and personal power are similar to French and Raven's (1959) bases of power except for ecological control, which refers to leader influence over the behavior of subordinates by controlling the physical environment, technology, and organization of work. Under sources of political power, influence control over decision-making processes is accomplished by getting representatives into top administrative positions and by influencing decision

procedures and criteria. In a coalition, separate parties join together to help each other obtain what they want by supporting or opposing an action. The objective of cooptation is to undermine expected opposition to an action by inviting an influential member of the opposing group to join in the decision-making process regarding an action. Rewards often accrue to the coopted person in the form of salary, status, or other financial gain.

For Yukl (1981) the essence of leadership is influence, where influence is the effect of an agent on a target. Power is an agent's capacity to influence a target unilaterally.

Gardner (1990), like Burns (1978), addressed power as an important part of leadership and distinguished power from leadership. Power is the capacity to bring about certain intended consequences in the behavior of others and the capacity to prevent outcomes that one does not wish (p. 16). Sources of power include strength (physical coercion), custom (tradition), organizational position, beliefs (political, religious), public opinion (support of the public), symbols (flag), information, and economic power. Leadership is the process of persuasion or example by which an individual or leadership team induces a group to pursue objectives held by the leader or shared by the leader and his or her followers (Gardner, 1990, p. 17).

Power and Gender

Insights into women's perspectives on power are derived from several representative studies. Kanter (1977) defined power as the ability to obtain things done, to mobilize resources, to get and use whatever a person needs for the goals he or she is attempting to meet. She distinguished her definition of power from

hierarchical domination which exists in some large organizations where official decision making is done by relatively few individuals. She also asserted that more is accomplished when people are empowered, which occurs if individuals gain control over the conditions that make their actions possible, which includes greater participation in decision making and more access to resources. When the latter conditions exist, power becomes expansible.

Kanter (1977) observed that individual power in large organizations can be increased through participation in organizational activities that meet the criteria of being extraordinary, highly visible, and relevant. To be extraordinary may include being successful in a new position, making successful organizational changes, or by taking a major risk successfully. Visibility often occurs when an individual's position straddles the boundaries within the organization's structure or the organization and its environment. Relevance means the activity must be tied to a solution to a pressing problem of the organization.

Power accrues to those who nurture alliances with sponsors, peers, and subordinates (Kanter, 1977). Sponsors function in three ways: (a) they fight for and promote those who are sponsored; (b) they help those sponsored to bypass the hierarchy through the provision of inside information and cutting red-tape, and (c) they send a signal to others that they support and exercise influence for those sponsored. This practice was common in organizations studied by Kanter to ensure success for men. She asserted sponsorship is absolutely essential for the success of women and minorities. Power is accrued through building relationships based on the

adage, "You scratch my back, I'll scratch yours." One never knows when a subordinate might become one's boss or when his/her support may be necessary.

Powerlessness was attributed to those held accountable for results produced by others, without access to resources, outside status, sponsorship, or mobility potential within the organization (Kanter, 1977). Whatever the power of these individuals it tended to be manifested as bossiness, controlling, or critical. They also tended to jealously guard their own territory or domain and insisted on strict adherence to the rules.

The topic of women in educational administration was addressed by Shakeshaft (1987). No definition of power was offered, but women's collaborative approaches to decision making was indicated as a means of sharing power. Women were more likely than men to encourage the empowerment of their teachers by involving them in the decision-making process. Additionally, Shakeshaft (1987) asserted that women who manage from a collaborative framework do so in systems that stress the value of competitive individualism and personal achievement. In a competitive environment, women's collaborative style initially is mistaken for weak administration but is instrumental to being rated as effective over the long haul.

Helgesen (1990) focused her research on whether the way women lead is different from that of men, replicating the research methodology employed by Mintzberg (1983) on highly successful leaders, all of whom were men. Mintzberg's findings indicated that men held power, in part, by controlling decision making and information. Helgesen's study indicated successful women share power by including others in decision making and by sharing and soliciting information.

Power in cross-cultural communications and clinical practice in the social services and mental health professions was examined by Pinderhughes (1989). Power was defined as "the capacity to influence, for one's own benefit, the forces that affect one's life, while the inability to exert such influence was powerlessness" (p. 122). As an African-American woman, she asserted that in cross-cultural helping relationships, the clinician expert is in a position to interact with clients in a manner characterized by domination-subordination or in a manner characterized by equality. Clients become powerless in the domination-subordination relationship. Pinderhughes strongly recommended that clinicians empower clients by using strategies that enable them to experience themselves as competent, valuable, and worthwhile, both as individuals and as members of their cultural group. Pinderhughes suggested that one strategy for clinicians to encourage empowerment was to avoid interacting with clients based on stereotypes.

Helgesen (1990), Kanter (1977), Pinderhughes (1989), and Shakeshaft (1987) stressed the importance of empowerment in their contributions to the power literature. Empowerment is achieved by enlarging the circle of people involved in the decision-making process. The concept of empowerment distinguishes women's perspective of power from men's perception of power except for Lasswell and Kaplan (1957) who defined power as participation in decision making.

Several similarities regarding various views on power are discernible among the literature cited, whether male or female. Kanter's (1977) "alliances" and Yukl's (1981) "coalitions" convey similar notions of ways to increase one's power. The differences are more striking. Few of the women contributors to the power literature

examined mentioned coercion, rewards, or legitimacy (authority) as sources of power, while these were the most common sources of power mentioned by the men.

Ambiguity of Traditional Power

Discussions of power have relevance for numerous disciplines. The ideas of influence, persuasion, dominance, compliance, reward and punishment, and production of intended effects permeate these views. Contributors to the traditional perspectives of power hold both similar and different views concerning the power phenomenon. One of the reasons for the ambiguity surrounding power is that it is defined differently by each of the scholars. Within disciplines, power terminology is ambiguous outside that particular theoretical context (Dahl, 1968; Lasswell, 1948; Wagner, 1969). Thus, despite broad interest in the topic, the literature depicts a disconcerting heterogeneity and the relationship of the different views is unclear (Pollard & Mitchell, 1972). Furthermore, the major theoretical analyses of power have little data related to them; conversely, the empirical research is often tied to a theoretical position in a tenuous manner (Schopler, 1965). The researcher presents a theoretical-empirical alternative for studying power that is appropriate for the field of educational research and measures power in an empirically different manner in application to educational research.

Power in Practice

The concept of how traditional power works can be ascribed to a person, to a position, or to an idea. Confusion arising from definitions of traditional power appear to have promoted ambiguity in identifying or specifically ascribing such power and defining its stylistic employment. Because of the causal, reductionistic, closed system,

dichotomous, linear view of human-environment interactions, the examination of how traditional power works can be a daunting undertaking.

Blanke's (1980) Power Strategy Style Theory synthesized previous power theories and expanded the perspectives of many of the contributors to the traditional power literature. Inherent in the employment of traditional power is the ability to create and maintain a dominant coalition which articulates a vision, mobilizes resources, induces others to accomplish a plan, prevents undesirable modification of a plan, and persuades most others to accept the dominant coalition's decisions as binding. Russell (1969) and Weber (1957) concurred with the idea of a dominant coalition. Mobilization of resources was included in both Kanter's (1977) and Burn's (1978) definition of power. Getting others to accomplish a plan was at the heart of power and was a generally agreed upon concept (Burns 1978; Gardner, 1990; Pfeffer, 1992; Yukl 1981).

Blanke's (1980) Power Strategy Style Theory delineated five basic power strategies: (a) Power Over, (b) Power Through, (c) Power With, (d) Power Against, and (e) Power Created. Mieres (1990) described each of the power strategy styles and four fundamental characteristic dimensions: (a) characteristics of the powerful, (b) characteristics of relationships, (c) characteristics of the decision process, (d) characteristics of control. Each of these power strategies will be examined in light of these characteristics.

Power Over

"Power Over" was identified as a type of power. It employed forced compliance to achieve intended outcomes (Blanke, 1980). The privileged were the

dominant coalition. They included the monarch in countries where a king or queen reigned or the wealthy in any society. Privilege was accrued through heredity in a monarchy or through accumulation of vast wealth. The concept of privilege was also a key concept explored by McIntosh (1988). She suggested privilege includes all wealthy, white, Anglo-Saxon males and remains a pertinent issue in contemporary society. The powerless included everyone but those who comprised the dominant coalition. The strategy employed was intimidation induced by fear. Power Over was utilized to maintain privilege and the dominant coalition was the decision-making body. The employment of Power Over co-opted the military, police, and functionaries such as school administrators and teachers to keep the powerless in their place (Blanke, 1980). Acquiescence, indifference, and conformity constituted consent with Power Over. The powerless of such a system appeared to be apathetic, following because of always being a follower and because it was customary.

McGregor's (1960) Theory X was a description of Power Over. He identified three assumptions concerning human nature and behavior.

1. The average human being has an inherent dislike of work and avoids it if he can.
2. Because of this human characteristic of dislike of work, most people must be coerced, controlled, directed, and/or threatened with punishment in order for them to put forth adequate effort toward achievement of organizational objectives.
3. The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, and wants security above all (pp. 33-34).

Etzioni's (1961) concept of coercive power was a form of Power Over. He suggested that coercive power rested on the application of threat of physical sanction. Negative and positive implications accompany the employment of Power Over. Blanke (1980) and Hampton, Summer, and Webber (1987) contended that fear and mistrust characterize the powerless which results in coerced compliance, but they also may create physical violence within the ranks of the powerless with serious societal repercussions. In circumstances which require immediate response to maintain the health and safety of citizens, Power Over is deemed appropriate. In an educational setting participants may require this power strategy, but Sergiovanni, Burlingame, Coombs, and Thurston (1987) cautioned the wisdom of using this practice because people dislike it and tend to resist, either formally or informally. Comer (1980) indicated that ways of undermining a higher authority person who demands performance can be effectively accomplished on an informal basis.

Power Through

"Power Through" is the process of aggregating enough energy and authority to accomplish a plan by use of structured organization (Blanke, 1980). In highly structured organizations where specialization and standardization are emphasised to improve efficiency and effectiveness, the dominant coalition is a managerial elite. These individuals learn how to design and manage organizations to utilize resources efficiently. The powerless are individuals or groups of individuals who cannot aggregate enough energy and authority to accomplish a plan within the structured organization. The use of wealth, skill, and respect, accrues and dispenses unequally to the members of the organization who display the highest degree of productivity and

efficiency are the primary motivating factors. Decision making is accomplished by the managerial elite.

Compliance based on partial or slanted information is the primary form of consent under Power Through. The powerless confined their consent to a specific part of the plan, not necessarily to the plan as a whole, or to the managerial elite who developed and decided the plan.

Weber (1957) delineated three dimensions of the ideal bureaucracy which substantiated the strategy of Power Through:

1. Rules and regulations should be developed to provide direction and guidelines to employees. These rules and regulations are to be impersonalized to enhance predictability of performance activities.
2. Organizations are to keep records of administrative decisions and activities to facilitate an evaluation of decisions.
3. Activities are to be divided into a systematic division of labor to clearly define tasks, authority, and responsibility for each employee.

Sergiovanni et al. (1987) suggested five leadership forces available for principals as they impacted schooling: (a) technical force, (b) human force, (c) educational force, (d) symbolic force, and (e) cultural force. They identified a technical leadership force which can be aligned with Power Through.

The negative implications of the utilization of the Power Through strategy revolves around the passivity of the powerless and the competitiveness of the managerial elite, or of those aspiring to become part of this dominant coalition. Kanter (1989) cited reasons why competition can depress performance. Given the

highly competitive nature of some organizations, many of the opposing arguments appear to have been short changed (Covey, 1994; Pfeffer, 1992; Sergiovanni, 1992).

Power With

Blanke (1980) described "Power With" as a strategy that involves those affected by decisions in the decision-making process. He proposed that Power With rests on the belief that all individuals are sacred, created equal, and hold inherent human rights. The operationalization of power rests with the contention that all individuals have a latent potential which can be harnessed for the good of society (Blanke, 1980; Marx & Engels, 1982; Sergiovanni, 1992).

A similarity exists between Power Through and Power With in that the dominant coalition remains the final authority. In the Power With strategy the dominant coalition adheres to the following principles:

1. Individuals have needs for personal growth and development.
2. Most workers are underutilized and are capable of more responsibility and greater contributions to the organization.
3. Groups are important to people, especially work groups.
4. Work groups can be either helpful or harmful to the group.
5. Collaboration within work groups can contribute significantly to organizational effectiveness.
6. Expression of worker feelings should be supported to enhance problem-solving, job satisfaction, and personal growth.
7. Interpersonal support, trust, and cooperation should be increased.

8. Personality clashes between individuals or groups are functions of organizational design rather than the individual or group involved.

9. Informed leadership, intergroup collaboration, goal setting and job satisfaction result when feelings are seen as important data.

10. Accomplishment of organizational goals can be enhanced when the emphasis on conflict resolution is shifted from commanding or smoothing over to open discussion of viewpoints (Blanke, 1980).

Power With strategies are employed to enhance organizational outcomes and to satisfy human needs of workers. Major motivators of this strategy are a desire for active participation in one's life, a feeling of belonging to a group, a sense of human potential, and a valuing of cooperation rather than competition (Blanke, 1980).

Powerlessness results when fear is used to motivate by the managerial elite as well as those who expect equal power in decision making. Enabling those powerless individuals requires helping them acquire problem solving and collaboration skills to participate more fully and successfully.

Commitment through informed judgment is the nature of consent in Power With. Desire for membership is not enough; consent also must result in commitment if Power With is to be successful (Blanke, 1980; Block, 1993; Sergiovanni, et al., 1987).

McGregor (1960), Sergiovanni, et al. (1987), Sergiovanni (1992), and Leithwood and Montgomery (1986) subscribed to the concept of Power With. McGregor (1960) posited three assumptions in his description of Theory Y:

1. External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.

2. The average human being learns, under proper conditions, not only to accept but seek responsibility. Avoidance of responsibility, lack of ambition, and emphasis on security are generally consequences of experience, not inherent human characteristics.

3. The capacity to exercise a relatively high degree of imagination, ingenuity and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population (pp. 47-48).

The critical goal derived from these assumptions is integration. For McGregor (1960), this meant the creation of conditions within which members of an organization can best achieve their own goals by directing efforts toward the success of the enterprise. Participation in decision making, problem solving and the sharing of monetary rewards are necessary conditions for integration to occur.

Sergiovanni's, et al. (1987) human force was the power of principal leadership derived from harnessing human resources. They posed crucial leadership behaviors for principals practising human force leadership (i.e., positive support for employees, encouragement of personal and professional development, and employment of participatory decision making).

The employment of Power With strategies suggests two limitations in the education enterprise: cost and time. At a time when serious cuts have been dealt to education, it appears unlikely that funding will be available to support extensive staff

development programs at any level in the education hierarchy. Collaborative decision making, site-based management strategies, total quality management techniques and restructuring place time constraints on their accomplishment. Although the commitment may be evident, the necessary time may not. Power With strategies exhibits the potential for building commitment on the part of those involved in education through informed consent.

Participatory or collaborative decision making is the essential ingredient of Power With strategies. Real, intended change in education requires the involvement of participants on many levels (Fullan, 1982; Wayson, Mitchell, Pinnell, & Landis, 1988).

Power Against

"Power Against" is a method employed by the powerless to voice or bring about a change in the relationships with the dominant coalition. The purpose of Power Against is to disarm the powerful by disallowance of their control. Blanke, (1980) identified two substrategies associated with the use of Power Against, non-violent informal commitment and compliance based on partial or slanted information formed the bases of consent in the use of Power Against strategies. The powerless clearly understand the issues they attempt to change and are committed to the cause. Stereotyping the powerful to behave in violent and oppressive ways results from partial information and the oppressed tend to disregard any evidence to the contrary (Blanke, 1980).

Evidence of Power Against strategies on the world political scene is rife, but the educational arena in Alberta has experienced similar examples. The decision of

the Alberta government in 1994 to remove the authority of local school boards to levy an education tax, and the forced amalgamation of school jurisdictions were two key examples. Stakeholders in education, from the government to the parents, found themselves organizing and adopting non-violent means to voice their concerns through the Round Table Discussion Groups formed by the government, the Alberta School Boards' Association, the College of Alberta School Superintendents, and local parent and community groups. The composition of the dominant coalition fluctuated as various groups vied for greater input into educational decisions. The government, superintendents, trustees, school-based administrators, and parents interchanged positions, depending upon the issue contested.

Power Created

Blanke's (1980) ultimate power is "Power Created." This power captures and increases the energy and resources of individuals through the conviction that they are more powerful than they think they can be. The conditions necessary for this type of power are: (a) capable people are likely to expand their energy if their work is important, moral, and doable; and (b) people need an atmosphere which provides the opportunity to experience the most universal value--to love and accept love. Nyberg (1981) referred to the second condition as fealty. Blanke contended this atmosphere is present in the informal organization where trust, a precondition for love, flourishes. Trust is recognition on the part of people that independence and interdependence are necessary if a loving relationship is to develop. It also means that all parties in a relationship believe in each other's competence and commit to others in the informal group.

Blanke (1980) suggested that love requires the ability to trust, to empathize, to commit, to be compassionate, and to know joy and wonder. These conditions are more likely to occur in informal situations which foster the feeling of being more powerful than self and creating a community with others. Unconditional love or compassion provides support for colleagues and a safe environment.

The traditional dominant coalition, the managerial elite, did not control the informal group, rather there was much freedom among members and a powerless class did not emerge because group members valued, respected, and cared for each other. Decision making by the traditional dominant coalition is elaborated upon by the informal group. They tend to particularize general roles and rules in terms of appropriate norms or behavior and provide moral fibre to the formal organization.

A potential conflict for members of the informal group was identified as loyalty (Blanke, 1980). What boundaries of loyalty existed between the individual and the formal organization? What boundaries of loyalty existed between the individual and the informal group? What impact might this loyalty to either have on an individual's performance? The trick for the dominant coalition in managing individual members of the informal group appeared to be in the recognition of the created power energy of the informal group and guiding its direction.

Barrett's Power Theory

This section of the literature review focuses upon Barrett's (1983, 1986) definition of power based on the Rogerian model of unitary man and the measurement of that power. Barrett's power theory concludes the literature review.

Barrett (1990a) defined power as:

. . . the capacity to participate knowingly in the nature of change characterizing the continuous patterning of the human and environmental fields as manifest by awareness, choices, freedom to act intentionally, and involvement in creating change. Power, a continuous theme in life experiences, dynamically describes the way human beings interact with their environment to actualize some potentials for change rather than others and, thereby, share in the creation of their human and environmental reality. Power is being aware of what one is choosing to do, feeling free to do it, and doing it intentionally. (p. 108)

Helicy concerns the nature and direction of change (M. Rogers, 1980); it is operationalized by the variables of power and human field motion. Both variables are behavioral indicators of human change. Power concerns the nature of change; it is a change in position. Thus, helicy is the unifying principle that incorporates power and human field motion.

Human field motion, an index of unitary human development (Ference, 1979), is related to power, the capacity whereby humans knowingly participate in the nature of trait development. Power dynamically describes the way human beings interact with their environment to actualize some developmental potentials rather than others.

Power is a field manifestation of pattern, human and environmental, that emerges out of the human-environmental interaction. Power is not the interaction. Power can be examined from the perspective of the human field, the environmental field, or the two fields in interaction. Power is the same phenomenon regardless of the perspective from which one views it (Barrett, 1983).

Power is a non-causal phenomenon. Neither humans nor environment control anything; rather, the human-environment interaction is a mutual process in which both fields continuously participate in change (M. Rogers, 1986). However, power denotes the knowing participation in that change.

Power exists as a natural potential of human development; it exists as a latent or manifest capacity. Consistent with human individual and developmental differences and the diversity of human and environmental fields interacting, power can manifest in a diversity of forms. Neither intrinsically good nor evil, the form in which power manifests can be labelled constructive or destructive depends upon the interpretation of the specific power form according to various value systems. Likewise, repatterning can be labelled beneficial or detrimental to the human and/or environmental fields.

Barrett's (1983) theory of power does not value the various power forms; it recognizes differences. The theory describes the phenomenon of power as the capacity to participate knowingly in change and indicates that the way one knowingly participates varies. Field behaviors that characterize the capacity for knowing participation in change are identified. However, particular power forms that characterize how one knowingly participates are not specified.

Power can be viewed empirically as a state-trait phenomenon. Theoretically, its state nature is represented in the momentary, continuously changing human and environmental field pattern. Its trait nature is represented in the consistency of human and environmental field patterns.

As a unitary being, the human field experiences the felt cognizant activity of power. This synergistic experience is an affective feeling of strength, a volitional and

cognitive recognition of choices, and behavioral activity. Outcomes are innovative, creative, and probabilistic. The intensity, frequency, and form in which power manifests itself vary. However, the field behaviors that characterize power, regardless of the manifest power form, can be further specified and operationalized to include awareness, choices, freedom to act intentionally, and involvement in creating changes. These behaviors are consistent with Rogers' (1980) conceptual system. They specify a power theory that endorses mutual, simultaneous processes and questions causality, domination, and control.

Knowing participation is to be aware of what one is choosing to do, to feel free to do it, and do it intentionally. Depending on the nature of the awareness, the choices, the freedom to act intentionally, the range of situations in which one is involved in creating changes as well as the manner in which one knowingly participates vary. In addition, power is relative; it is a state-trait felt cognizant activity that can manifest in a variety of forms.

Human field motion, also developed within the Rogerian framework, is a perceptual experience of motion and an index of unitary human development that manifests the continuously moving position and flow of the human field pattern. While Ference (1979) studied the principle of resonancy, helicy was suggested as an area for further investigation of human field motion.

To change is to be in motion. The world of ceaseless change is incessantly in motion (Capra, 1975, p. 191). Human field motion is an indicator of human change. Human field motion involves passive receptivity as well as active assertion. Nor is the unitary experience of human field motion manifest only in physical or observable

motion; rather, it includes perceptual, physiological, cognitive, and affective manifestations. Yet, it is more than and different from such particulate notions of motion; the transcendent characteristics of human field motion are unitary.

As a four-dimensional experience of position, human field motion is an indicator of the continuously moving position and flow of the human field pattern. As an index of unitary human development, human field motion is an experience of process, change, and wave frequency which transcends time and space as well as movement and stillness. Human field motion reflects the dynamic interaction of the human field integral with the environment.

According to this power theory, there is an active involvement and dynamic flow of movement of the human field integral with the environmental field. Since human field motion is an index of unitary human development (FERENCE, 1979), the proposal is that as development proceeds, so does the capacity to participate knowingly in change (Barrett, 1983). Hence, higher frequency power characterizes and relates to the human field whose development has evolved further in the direction of accelerated human field motion.

The interrelationship of the concepts of awareness, choices, freedom to act intentionally, and involvement in creating change constitutes power according to Barrett (1983). Such manifestations can be measured by the Barrett Power as Knowing Participation in Change Tool V--II, using semantic differential techniques to rate each of the power concepts on a set of bipolar adjective scales.

Summary

The concept of power has been examined from two viewpoints: the reductionist, traditional view and as a unitary concept. The reductionist point of view has dominated the literature in current educational change enterprises, although hints of a more holistic view have been fleetingly entertained (Block, 1993; Covey, 1989, 1990, 1994; Wheatley, 1994). Considering the major educational changes proposed by Alberta Education, it appears of paramount importance that in the implementation of these changes, participants in the change must feel their personal (holistic) power to operationalize what has been proposed. Without the participation of trustees, superintendents, principals, and school advisory councils, educational change in the province of Alberta may remain on paper only. It is of utmost importance that to truly operationalize real, intended change (Rost, 1991), all participants must actualize their potential to be aware, recognize their choice, act intentionally, and participate in the change if change is to be meaningful and effective.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

The methodology and research design employed in this study are discussed in this chapter. The purpose of the study was to measure the degree of power as knowing participation in change among Alberta trustees, superintendents, principals, and school advisory council presidents to provide a measure for a power comparison of the degree of knowing participation in change between and among the selected groups. This measure may be important data for the effective, meaningful implementation of change in the educational arena in the province of Alberta. The study was undertaken to determine if a correlation existed between personal and institutional variables and perceived power as knowing participation in change as manifested by awareness, choice, freedom to act intentionally, and involvement in creating change. Gender and type of jurisdiction were excluded in the correlations as this information was collected as nominal data. The accrued data may be utilized by the government and education stakeholders to target specific educational groups to ensure effective implementation of current and future change. By measuring the constructs of power as identified by Barrett (1986), stakeholders in the education process may recognize their individual power and thereby create power groups which may be more effective in implementing or opposing educational change in the province of Alberta.

The research design is discussed and the definitions of the dependent and independent variables are presented along with the 11 null hypotheses for testing. A description of the subject population is discussed followed by a description of the demographic questionnaire and the instrument used to gather the information necessary for the investigation. The statistical treatment of the data is outlined and the chapter concludes with a delineation of the methodological assumptions and limitations identified in the research project.

Research Design

An inferential and correlational research design was used to investigate the perceived power as knowing participation in change between and among Alberta school trustees, superintendents, principals, and school advisory council presidents, and the personal variables of age, gender, and years of experience, and institutional variables of position, size, type, and school configuration (grade level). This method of inquiry has been used by many educational and behavioral researchers since the need to determine the alteration of attitudes and change are important to the advancement of progress in many fields (Borg & Gall, 1989). In view of the limited research in the area of power as knowing participation in change, an initial assessment of the perceived power of the participants was essential. The descriptive approach was selected because of the need to generate systematic data describing the perceived power of the population participating in the study. This approach yielded the baseline data for this purpose.

The use of descriptive techniques, with correlational statistical techniques and inferential statistics, allowed for the identification of variables and testing of

hypotheses to determine the significant predictors of perceived power. The instrument, PKPC Tool V--II (Barrett, 1986) was used to establish the measure of perceived power. A demographic questionnaire was used to provide data on the personal and institutional variables.

Independent and Dependent Variables

The independent variables selected to be studied--gender, age, position, school level, years of experience, size of jurisdiction--were defined as follows:

1. Age. The subjects were asked to place themselves in one of five age categories: 21-30, 31-40, 41-50, 51-60, and 61-70. The age categories produced five groups or levels of the variable.
2. Gender. The subjects were asked to identify themselves as male or female, producing two categories of gender variables.
3. Years of experience. The subjects were asked to indicate the number of years of experience they have in their current position in the Alberta educational system.
4. Position. The subjects were asked to identify themselves as either a trustee, superintendent, principal, or school advisory council president. This produced four categories or levels of the variable.
5. Size of jurisdiction. The subjects were asked to indicate, based on the categories specified, the size of the jurisdiction in which they worked, based on the number of students in that jurisdiction.
6. School configuration (grade level). The schools in the province of Alberta were classified according to grade levels. For the purposes of this study,

administrators were asked to indicate which of these levels of schools they were assigned to administer, thereby creating six levels of the school level variable: Grades 1-9, 7-9, 1-6, 7-12, 1-12, and 10-12. This was also applicable to school advisory council presidents.

7. Type of jurisdiction. The subjects were asked to indicate the type of jurisdiction in which they worked as either a district or division (see Appendix I).

Dependent Variables

Forty-eight bipolar variables were included for study and analysis in the research project. These 48 variables in the instrument were grouped according to awareness, choices, freedom to act intentionally, and involvement in creating change. These were the field manifestations of power. Power as the degree of knowing participation in change is being aware of what one is choosing to do, feeling free to do it, and doing it intentionally. Awareness and freedom to act intentionally guide participation in choices and involvement in creating changes (Barrett, 1986).

Feeling free to act as one wishes was crucial to having power because such freedom impacted on the types of choices one made. Barrett's (1986) power theory suggested that to have power is to be involved in creating changes. To involve oneself in creating changes requires feeling free to act intentionally. The degree to which one feels free is related to the kinds of choices one makes and the potency of those choices. This entire process involved awareness. It was the interrelationship of the concepts of awareness, choices, freedom to act intentionally, and involvement in creating changes that constituted power. Power, a continuous theme in the flow of life experiences, dynamically describes the way humans interact with their environment to

actualize potentials for unitary change, and thereby, share in the creation of their human and environmental reality.

Research Questions and Null Hypotheses

Three research questions guided this investigation:

1. What is the perceived power of selected education participants in Alberta in influencing change at the onset of important educational changes mandated by Alberta Education?
2. What differences in perceived power exist among selected education participants in Alberta based on personal (age, gender, years of experience) and institutional (position, size, type, and school configuration [grade level]) variables?
3. What personal and institutional factors contribute to the perceived power of selected education participants in Alberta?

Based on a review of the literature the following hypotheses were generated (Alpha = .05 was used in all tests of statistical significance):

Hypothesis 1: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents.

Hypothesis 2: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents based on the size of the jurisdiction.

Hypothesis 3: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and size of jurisdictions.

Hypothesis 4: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents based on district or division jurisdictions.

Hypothesis 5: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and district or division jurisdictions.

Hypothesis 6: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and age.

Hypothesis 7: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and age.

Hypothesis 8: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and gender.

Hypothesis 9: There is no significant difference in the perceived power of the selected groups on the sub categories of awareness, choice, freedom to act intentionally, and involvement in change and gender.

Hypothesis 10: There is no significant difference in the perceived power of the selected groups on each of the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change identified in the instrument (PKPCT V--II).

Hypothesis 11: There is no correlation between institutional factors of size, position, and school configuration (grade level), and personal factors of age and years of experience, and the measure of perceived power.

Sample Population

The sample population was drawn from Alberta Education Information Exchange files. Determining a statistically significant sample size ($\text{Alpha} = .05$) was based on Krejcie's and Morgan's (1970) table for determining needed size of a randomly chosen sample from a given finite population of cases such that the sample proportion will be within .05 of the population proportion with a 95% level of confidence.

When the proposal for this research was developed, 140 superintendencies existed in the province of Alberta. At the time the research was initiated, due to restructuring, 59 superintendencies remained. Similarly, the number of elected boards of trustees was reduced to 59. The total number of chairpersons of Alberta trustees remaining after restructuring was 59. The total number of principals in the categories selected for study in the province of Alberta was 1,412. Table 1 indicates the grade levels, the total number of principals for the school configuration, and the sample size. The total number of principals of grades 1-9 schools was 307 (sample size, 175). The total number of principals of grades 7-9 schools was 114 (sample size, 92). The total number of principals of grades 1-6 schools was 589 (sample size, 234). The total number of principals of grades 7-12 schools was 83 (sample size, 70). The total number of principals of grades 1-12 schools was 189 (sample size, 127). The total number of principals of grades 10-12 schools was 130 (sample size, 97).

Table 1

Sample Population of Principals by School Configuration (Grade Levels)

Grade level	Number of principals	Sample size
1-9	307	175
7-9	114	92
1-6	589	234
7-12	83	70
1-12	189	127
10-12	130	97
Total	1,412	795

At the time of this research, the mandatory requirement for all schools to form a school advisory council had been postponed. As a result, the total number of school advisory councils could not be established. Some schools had active advisory councils, in others they were never established, and in some schools the councils were not operational. At the time of the study the researcher estimated, based on feedback from superintendents, that there were 400 active advisory councils.

Participants in the study were randomly selected using the technique of linear systematic sampling. Borg and Gall (1989) suggested the main reason for using random sampling techniques was that random samples yield research data that can be generalized to a larger population within margins of error that can be determined

statistically. Random sampling was also preferred because it permitted the researcher to apply inferential statistics to the data.

Instrumentation

The Power as Knowing Participation In Change Test, Version II (PKPCT V--II) instrument used a semantic differential technique to measure the meaning of operational indicators of power defined as knowing participation in change (see Appendix B). The semantic differential technique was chosen because it is a methodologically sound approach for measuring the meaning that some concepts have for certain people at certain times. The model has been shown to be reliable and valid, and it has lent itself to statistical techniques for validation purposes (Heise, 1979; Osgood, Suci, & Tannenbaum, 1957). It used an uncomplicated approach that required a short time to complete. Osgood, Suci, and Tannenbaum (1957) defined the measurement of meaning of a concept by rating the concept against a group of bipolar adjective scales. There were usually seven alternatives on the bipolar adjective semantic space for responding to a concept. The direction and distance of responses on the set of scales used to measure the concept defined the quality and intensity of meaning of the concept for that person (Heise, 1979).

The Power as Knowing Participation in Change Test (PKPCT) was developed by Barrett (1983). The instrument utilized the semantic differential technique with a 1 to 7 scale located between bipolar adjectives to operationalize four constructs: awareness, choices, freedom to act intentionally, and involvement in creating change. Three contexts were included for each construct: myself, my family, and my occupation. Thus, the original PKPCT contained 4 constructs in 3 different contexts

for a total of 12 scales. The last item of each scale was used for test-retest purposes. Each construct contained 13 items containing a response category of 7 possibilities spread along a bipolar continuum. Therefore, the construct contains a total of 52 separate items, 4 of which were used for test-retest purposes. The PKPCT was printed back-to-back on one sheet of white paper. Directions for respondents were highlighted by a purple band before each of the 4 major constructs.

Two different expert panels were utilized to establish the face validity of the tool. A pilot study with 267 subjects (68% female) of various ages, educational, and occupational backgrounds was used to validate the instrument and establish reliability. In the pilot study, the PKPCT was strung out in a single matrix and factor analyzed with principle factors. The first factor accounted for 42%; the second and third factors accounted for an additional 9% of the variance. Simple structure was not obtained with varimax rotation. Oblique rotation did not increase factor clarity (Strickland & Waltz, 1990, p. 164).

Construct validity for the PKPCT was reported as the validity coefficients for each factor in Barrett's (1983) pilot study and ranged from 0.56 to 0.70. Reliability, reported as the variance of the factor scores obtained for the first factor when all data were merged into a single factor, was .55 for awareness in relation to occupation, .58 for choices in relation to myself, .74 for freedom to act intentionally in relation to family, and .99 for involvement in creating change in relation to occupation. The last item on each scale was utilized for test-retest reliability. The coefficient of stability ranged from .59 to .90. Scales which did not load or which loaded on more than one factor were eliminated from the instrument. In order to control for response set, the

order of the scales was randomized for each concept and the polarity of the items was reversed at random.

In Barrett's (1986) final study of 625 subjects (55% female), the power scale was again strung out in a single matrix and factor analyzed. Only one viable factor emerged accounting for 43% of the variance. Construct validity (factor loadings) ranged from .56 to .66. Reliability, the variance of the factor score obtained for the first factor, was .63 for awareness in relation to occupation, .75 for choices in relation to myself, .95 for freedom to act intentionally in relation to family, and .99 for involvement in creating change in relation to family. Coefficients of stability (last item test-retest) ranged from .70 to .78. Barrett also found that subjects did not substantially differentiate among the contexts (myself, my family, my occupation) with a congruency coefficient of 0.99. In other words, power was generalized across contexts, and Barrett suggested that consideration be given to removing the contexts from the PKPCT.

Trangenstein (1988) tested the PKPCT, Version II, with 326 registered nurses and reported the following estimates of reliability using Cronbach's alpha: awareness, .86; choices, .88; freedom to act intentionally, .89; involvement in creating changes, .92; and the total power, .96 (four concepts considered together).

For this study, a demographic questionnaire (Appendix I) was devised to provide the required independent variables of gender, age, position, years of experience, school configuration (grade level), type, and size of jurisdiction.

Scoring

The Power as Knowing Participation in Change Tool, Version II (PKPCT V--II) utilized the semantic differential technique with a 1 to 7 scale loaded between bipolar adjectives to operationalize four constructs: awareness, choices, freedom to act intentionally, and involvement in creating change. Each scale contained one item for test-retest.

Barrett (1990b) suggested that factor scoring or scale scoring are appropriate for the PKPCT V--II. This study used scale scores which were summed for each of the power concepts. With summation scores, the range is 12-84 for each power concept and 48-336 for the total score. Lower scores indicate lower power; higher scores indicate higher power.

Procedure of Investigation

The research methodology involved a one-time administration of the PKPCT V--II (Appendix B), and a demographic questionnaire (Appendix I). Permission to use the instrument was granted the researcher by the author (Appendix F). The instrument, questionnaire, cover letters (Appendices A, B, and D), instructions (Appendix E), human subjects form (Appendix C), and stamped, addressed return envelopes were mailed to a randomly selected sample of the subject population of trustees, superintendents, principals, and school advisory council presidents. Principals were requested to distribute the research packet to the School Advisory Council president if one had been established. A courtesy telephone call was also made to superintendents explaining the intent to involve a trustee, principal, and/or a school advisory council president within their jurisdiction. The subgroup analyses

proposed via the hypotheses would severely limit the size of the groups in certain circumstances. Restructuring of education in Alberta at the time of the study had reduced the total number of superintendents. Lack of follow through by Alberta Education in the mandatory creation of school advisory councils further limited the number of participants in the school advisory council president group. Both the completed instrument and questionnaire or blank forms (indicating a decision not to participate in the study) were returned to the researcher by mail.

Participants were given four weeks to complete and return the completed PKPCT V--II instrument, the demographic questionnaire and the consent form. A follow-up reminder card was sent to each participant two weeks after the initial mailing.

Upon receipt of the completed PKPCT V--II instruments and questionnaires, each subject was assigned a code number. Data were coded for computer analysis. StatView 4.0 (1992) was used for the statistical analyses. Hypotheses testing was accomplished by using correlational statistics and ANOVAs with a level of acceptance at .05 level of significance.

Treatment of Data

The data entered into the computer bank included the personal and institutional variables. Since the data were parametric, appropriate procedures were used to analyze the data.

Initially, means were generated for baseline information, and scatter plots were developed for the dependent and independent variables. Further discussion of this procedure can be found in Chapter IV. ANOVAs were calculated to determine the

level of significance for Hypotheses 1-10. Multiple regression of the dependent variables and independent variables of age, position, years of experience, size, and school configuration (grade level) were analyzed for the level of significance as predictors of power. Further clarification of the statistical procedures is shown in Figure 1.

Methodological Assumptions of the Study

Several assumptions were made during the research effort.

1. The researcher assumed that all respondents to the test instrument and demographic questionnaire answered with integrity, without bias, and to the best of their ability, yielding a true indication of the perceived power factors.
2. The researcher assumed that the subjects embraced the essence and intent of the study, and approached the test instrument and questionnaire with integrity and enthusiasm, yielding a high rate of return.
3. The researcher assumed that the underlying power theories (Barrett, 1983, 1986; Rogers, E., 1970) were appropriate among the groups studied, based upon previous research conducted using the PKPCT V--II instrument.

Limitations of the Methodology

In addition to the limitations of the research study identified in Chapter I, additional methodological limitations were focused on the study participants. According to Fowler (1984), there are three reasons why subjects do not complete questionnaires or participate in a study: (a) they do not receive the survey for some reason; (b) they do not wish to participate in the study, or (c) they do not understand what is being asked of them so they do not respond or participate.

Figure 1. Variables and statistical procedures.

Participants received the survey by mail; they were individuals capable of understanding the instructions and the items on the instrument and questionnaire. Thus, the only valid reason, according to Fowler (1984), subjects did not return the survey is because they did not wish to participate in the study.

Summary

Chapter III has presented a discussion of the research design, the definition of the dependent and independent variables, and the 11 null hypotheses to be tested. The subject population, the instrument, and the demographic questionnaire were described and statistical treatment of the data was presented. The chapter concluded with the identification of the methodological assumptions and limitations of the study. The results of the statistical analyses and interpretation of the research findings follow in Chapter IV.

CHAPTER IV
PRESENTATION, ANALYSIS, AND DISCUSSION
OF THE FINDINGS

Overview

The analysis of data reported in the following section is a response to the research questions articulated in the first chapter. The investigation concentrated on three research questions:

1. What is the perceived power of selected education participants in Alberta in influencing change at the onset of important educational changes mandated by Alberta Education?
2. What differences in perceived power exist among selected participants in Alberta, based on the personal variables of age, gender, and years of experience and institutional position, type, and school configuration (grade level).
3. What personal and institutional factors contribute to the perceived power of selected education participants in Alberta?

Factors influencing individuals' perceived power were formulated using selective concepts identified through prior research investigating "Power as Knowing Participation in Change" (Barrett, 1986; Trangenstein, 1988). The personal variables of gender, age, years of experience and institutional variables of position, size of jurisdictions, and school configuration (grade level), along with type were included as independent variables to add dimension as influencing factors of perceived power.

Data analyses and discussion of the findings of the study are presented in three sections. Section 1 of this chapter presents the personal and institutional data accumulated through responses provided by the superintendents, board chairpersons, school advisory council presidents, and principals. The predictor variables used in the analyses and description of the subject population were also used to distinguish the various levels of each category to better understand the make-up, range, and number of respondents in each group under investigation. Section 2 presents a descriptive statistical summary and a discussion of the statistics for awareness, choice, freedom to act intentionally, and involvement in creating change, and overall power as dependent variables of the Power as Knowing Participation in the Change V--II instrument completed by 503 participants. Section 3 presents the data and contains the statistical analyses for each of the 11 hypotheses delineated in Chapter III.

Section 1: Demographics of the Subject Population

Survey instruments, demographic questionnaires, and consent forms were mailed to 59 board chairpersons and 59 superintendents, with a return rate of 45.8% and 74.5%, respectively. A total of 795 principals were included in the study, covering six possible grade configurations established in Chapter III. For return rates of principals by school configuration (grade level) (see Table 13).

Superintendents

Frequency distributions of the superintendents' responses to the demographic questions yielded data for 6 of 7 predictor variables applicable to this subject group. The grade level (school configuration) variable was not applicable since these respondents were assigned to jurisdictions, not to specific schools.

Forty-three males and 1 female completed the survey instrument and questionnaire, 97.7% and 2.3%, respectively. The respondent proportions are significantly different for age. The largest number of superintendent respondents were in the 51 to 60 group (52.3%) followed by the 41-50 group (47.7%) as shown in Table 2.

Table 2

Frequency Distribution of Superintendents by Gender and Age Variables

Variables	Number	%
Gender: Male	43	97.7
Female	1	2.3
Total	44	100.0
Age: 41-50 years	21	47.8
51-60	23	52.2
Total	44	100.0

The largest number of superintendents responding had 3,000 or fewer students in their jurisdiction (29.5%) (Table 3). The next highest response was 18.2% in jurisdictions of 4,001-5,000 students. Superintendents in jurisdictions of 3,001 to 4,000 and 5,001 to 6,000 students resulted in percentages of 13.6% for both size configurations. Respondents in jurisdictions of 6,001 to 7,000 students had a response percentage of 11.4%. The percentage for respondents in jurisdictions of 9,001

Table 3

Frequency Distribution of Superintendents by Size of Jurisdiction Variables

Size of jurisdiction	Number	%
3,000 or fewer	13	29.5
3,001 - 4,000	6	13.6
4,001 - 5,000	8	18.2
5,001 - 6,000	6	13.6
6,001 - 7,000	5	11.4
7,001 - 8000	1	2.3
8001 - 9,000	1	2.3
greater than 9,001	4	9.1
Total	44	100.0

students was 9.1%, while respondents in jurisdictions of 7,000 to 8,000 and 8,001 to 9,000 had a percentage of 2.3%, respectively.

As shown in Table 4, of the 44 superintendents who responded, 77.3% were in Divisions and 22.7% were in Districts. Fifty percent of all respondents were in the experienced category, defined as between 25 to 38 years of experience. Respondents in the intermediate category (27.3%) had between 13 to 24 years of experience, and 22.7% were in the less experienced category with 0 to 12 years of experience.

Table 4

Frequency Distribution of Superintendents by Type of Jurisdiction and Years of Experience Variables

Variables	Number	%
<u>Type of jurisdiction</u>		
Division	34	77.3
District	10	22.7
Total	44	100.0
<u>Years of experience</u>		
Less experienced	10	22.7
Intermediate	12	27.3
Experienced	22	50.0
Total	44	100.0

Trustees (Board Chairpersons)

Frequency distributions for board chairpersons' responses to the demographic questions yielded data for 6 of the 7 predictor variables applicable to this subject group. Since these respondents were board chairpersons, grade level (school configuration) variables were not applicable as they were not assigned to a specific school.

Fifteen males and 12 females completed the survey instrument and questionnaire for a return of 55.6% and 44.4%, respectively. There were no respondents in the 21 to 30 or 61 to 70 age groups. Those who responded were in the

41 to 50 age group (51.8%), followed by the 31 to 40 age group (11.2%), and the 51 to 60 age group (37.0%), illustrated in Table 5.

Table 5

Frequency Distribution of Trustees (Board Chairpersons) by Gender and Age

Variables

Variables	Number	%
<u>Gender</u>		
Male	15	55.6
Female	12	44.4
Total	27	100.0
<u>Age</u>		
31 - 40	3	11.2
41 - 50	14	51.8
51 - 60	10	37.0
Total	27	100.0

Thirty-three percent of the board chairpersons who responded had 3,001 to 4,000 students in their jurisdiction, followed by respondents in jurisdictions of 3,000 or fewer students and 4,001 to 5,000 students at 26.0%, respectively. Board chairpersons in a jurisdiction of more than 9,001 students totaled 15.0%. There were no respondents from other jurisdictions. Sixty-three percent of the board chairpersons were from divisions and 37.1% were from districts. Twenty-seven respondents

(70.4%) were placed in the inexperienced category defined as between 0 to 12 years of experience. Respondents in the intermediate category (29.6%) had between 13 to 24 years of experience. None of the respondents was in the experienced category (25 to 38 years of experience) as shown in Table 6.

Table 6

Frequency Distribution of Trustees (Board Chairpersons) by Size, Type of Jurisdiction, and Years of Experience Variables

Variables	Number	%
<u>Size of Jurisdiction</u>		
3,000 or Fewer	7	26.0
3,001 - 4,000	9	33.0
4,001 - 5,000	7	26.0
greater than 9,001	4	15.0
Total	27	100.0
<u>Type of Jurisdiction</u>		
Division	17	62.9
District	10	37.1
Total	27	100.0
<u>Years of Experience</u>		
Inexperienced	19	70.4
Intermediate	8	29.6
Total	27	100.0

School Advisory Council Presidents

Frequency distribution responses to demographic questions by the School Advisory (SAC) presidents yielded the following data for the 7 categorical variables. There were 26.8% male respondents and 73.2% female respondents in this subject group. Of the school advisory council presidents who responded, 50.2% were in the 31 to 40 age group. The age group 41 to 50 contained 46.4% of the respondents; 1.7% of the respondents were in the 21 to 30 and 51 to 60 age group, respectively. There were no respondents in the 61 to 70 age group. The data for these categories are shown in Table 7.

Most of the SAC presidents responding had 4,001 to 5,000 students in their jurisdiction 4(3.9%). The next highest percentages of SAC presidents were in jurisdictions of 5,001 to 6,000 students at 18.5%, and 3,001 to 4,000 students at 14.5%, respectively. In jurisdictions of 3,000 or fewer, the percentage of responses was 6.9%. In jurisdictions of more than 9,000 students and in 6,001 to 7,000 students, the responses were 6.4% and 5.8%, respectively. Four percent of the respondents were from jurisdictions with 7,001 to 8,000 students. There were no respondents in the 8,001 to 9,000 level as illustrated in Table 8.

The largest percentage of the responding (SAC) presidents (36.0%) were in schools with grades 1 to 12 and 32.6% were in grades 1 to 6 schools. Grades 7 to 9 schools had 16.0% of the respondents. Schools with grades 7 to 12 had a response rate of 6.9%. Grades 10 to 12 schools and grades 1 to 9 schools had 4.5% and 4.0% of the total number of respondents, respectively. SAC presidents who were in divisions totaled 59.4%, while 40.6% were in districts (Table 9).

Table 7

Frequency Distribution of School Advisory Council Presidents by Gender and Age**Variables**

Variables	Number	%
<u>Gender</u>		
Male	49	26.8
Female	134	73.2
Total	183	100.0
<u>Age</u>		
21 - 30	3	1.7
31 - 40	92	50.2
41 - 50	85	46.4
51 - 60	3	1.7
Total	183	100.0

Table 8

Frequency Distribution of School Advisory Council Presidents by Size of
Jurisdiction Variables

Variables	Number	%
3,000 or fewer	12	6.9
3,001 - 4,000	25	14.4
4,001 - 5,000	76	44.0
5,001 - 6,000	32	18.5
6,001 - 7,000	10	5.8
7,001 - 8,000	7	4.0
8,001 - 9,000	0	0.0
greater than 9,001	11	6.4
Total	173*	100.0

*5.5% failed to identify the size of their jurisdiction.

Table 9

Frequency Distribution of School Advisory Council Presidents by School Configuration (Grade Level) and Type of Jurisdiction Variables

Variables	Number	%
<u>School configuration (grade level)</u>		
Grades 1 - 6	57	32.6
Grades 1 - 9	7	4.0
Grades 7 - 9	28	16.0
Grades 7 - 12	12	6.9
Grades 1 - 12	63	36.0
Grades 10 - 12	8	4.5
Total	175*	100.0
<u>Type of jurisdiction</u>		
Division	107	59.4
District	73	40.6
Total	180**	100.0

*4.4% of this total failed to indicate the school configuration.

**1.6% failed to indicate the type of jurisdiction.

There were 92.8% of the SAC presidents who were in the inexperienced category defined as between 0 to 12 years of experience. In the intermediate category, 5.5% were defined as having 13 to 24 years of experience, while 1.7% were in the experienced category defined as having 25 to 38 years of experience, illustrated in Table 10.

Table 10

Frequency Distribution of School Advisory Council Presidents by Years of Experience Variables

Variables	Number	%
Inexperienced	168	92.8
Intermediate	10	5.5
Experienced	3	1.7
No response	1	0.18
Total	181*	100.0

*1.1% failed to answer years of experience.

Principals

Frequency distributions for principals who responded to the demographic questions yielded data for 7 criterion variables applicable to this subject group. There were 181 male respondents which represented 73.0% of the total number of principals surveyed. Sixty-seven female respondents in this subject group comprised 27.0% of the total number of respondents.

The age variable for principals in the 41 to 50 age group was 65.3%. The next largest age group was 51 to 60 which contained 18.1% of the principals who responded. Fifteen percent of the respondents were in the 31 to 40 age group, and 2.0% were in the 21 to 30 age grouping. There were no principals in the 61 to 70 age group. Table 11 presents the gender and age variables for these respondents.

Table 11

Frequency Distribution of Principals by Gender and Age Variables

Variables	Number	%
<u>Gender</u>		
Male	181	73.0
Female	67	27.0
Total	248	100.0
<u>Age</u>		
21 - 30	4	1.6
31 - 40	37	15.0
41 - 50	162	65.3
51 - 60	45	18.1
Total	248	100.0

The largest number of principals who responded had more than 9,000 students in their jurisdiction (37.0%). In jurisdictions of 3,000 or fewer students and 3,001 to 4,000 students, the percentage was 19.1%, respectively. In jurisdictions of students from 4,001 to 5,000, the percentage of responses was 13.0%, and 9.0% in jurisdictions of 5,001 to 6,000 students. Two percent of the respondents were in jurisdictions with 6,001 to 7,000 students, and 0.8% were from jurisdictions with 7,001 to 8,000 students. There were no respondents at the 8,001 to 9,000 level, Table 12.

Table 12

Frequency Distribution of Principals by Size of Jurisdiction Variables

Variables	Number	%
3,000 or fewer	47	19.1
3,001 - 4,000	47	19.1
4,001 - 5,000	32	13.0
5,001 - 6,000	22	9.0
6,001 - 7,000	5	2.0
7,001 - 8,000	2	0.8
greater than 9,001	91	37.0
Total	246*	100.0

*1% failed to identify the size of their jurisdiction.

The largest number of principals who responded (27.5%) were in schools with grades 1 to 6. For grades 1 to 12 the percentage was 19.8%. Schools with grades 1 to 9 had 18.6% of the respondents, schools with grades 10 to 12 had an 18.2% response rate. Grades 7 to 9 had a 10.5% response rate. Principals of schools with grades 7 to 12 had a 5.3% response rate (Table 13).

Principals in divisions totaled 56.7%, while 43.3% were in districts. Of those who responded, 52.4% were in the experienced category defined as between 25 to 38 years of experience; 31.9% were in the intermediate category defined as 13 to 24 years of experience; and 15.7% were in the inexperienced category defined as between 0 to 12 years of experience. Data are presented in Table 14.

Table 13

Frequency Distribution of Principals by School Configuration (Grade Level)**Variables**

Variables	Number	%
Grades 1 - 6	68	27.6
Grades 1 - 9	46	18.6
Grades 7 - 9	26	10.5
Grades 7 - 12	13	5.2
Grades 1 - 12	49	19.9
Grades 10 - 12	45	18.2
Total	247*	100.0

*0.4% failed to identify school configuration.

Table 14

Frequency Distribution of Principals by Type of Jurisdiction and Years of Experience Variables

Variables	Number	%
<u>Type of Jurisdiction</u>		
Division	140	56.7
District	107	43.3
Total	247*	100.0
<u>Years of Experience</u>		
Inexperienced	39	15.7
Intermediate	79	31.9
Experienced	130	52.4
Total	248	100.0

*0.4% failed to indicate type of jurisdiction.

**Section 2: Statistical Data Analyses and Discussion
of the Results of the 85 ANOVAs**

Table 15 presents the statistical analyses based on the 10 hypotheses which yielded 20 statistically significant findings of the 85 one-way ANOVAs calculated to determine if there were significant differences between levels of institutional and personal variables. The presentation and discussion of the findings of the study will focus on the 20 statistically significant differences identified from the data analyses.

Table 15

Probability Table of Personal and Institutional Variables for Hypotheses 1 Through 10

	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
<u>Trustees</u>		.0117*								
Power				<.0001*		0.6261		0.1497		
Awareness			.0195*		.0003*		0.1094		.0283*	
Choice			0.4343		.0017*		0.7087		.0461*	
Freedom to act intentionally			<.0001*		<.0001*		.0026*		0.3584	
Involvement in creating change			.0019*		.0007*		0.7385		0.0715	
<u>Superintendents</u>		0.5902								
Power				0.1063		0.4937		0.1521		
Awareness			0.5723		0.3137		0.5839		0.243	
Choice			0.8358		0.1107		0.5739		0.2266	
Freedom to act intentionally			0.4851		.0551*		0.3542		0.0982	
Involvement in creating change			0.4123		0.1433		0.6085		0.1999	
<u>Principals</u>		0.0148*								
Power				0.7316		0.7273		0.0715		
Awareness			.0393*		0.8601		0.8941		.0081*	
Choice			.0130*		0.5111		0.6492		0.2689	
Freedom to act intentionally			.0246*		0.6085		0.6548		0.062	
Involvement in creating change			.0102*		0.8229		0.2947		0.3276	

Table 15 (continued)

	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
<u>SAC (Presidents)</u>										
Power				0.4046		0.5474		0.9882		
Awareness		0.6272	0.3509		0.7466		0.4984		0.492	
Choice			0.9698		0.0885		0.5356		0.8336	
Freedom to act intentionally			0.5897		0.822		0.4823		0.5679	
Involvement in creating change			0.601		0.1704		0.303		0.9709	
<u>POSITIONS</u>										
Total power	0.2688									
Subcategory of awareness										0.5073
Subcategory of choice										.0037*
Subcategory of freedom to act intentionally										0.0603
Subcategory of involvement in creating change										0.2247

*Significantly different at Alpha < .05

Analyses and Discussion of the 11 Hypotheses

The discussion of the findings for Hypothesis 1 through 11 (see pages 11-12) are presented to focus attention on the dependent variables for each hypothesis that produced a statistically significant difference between the levels of the independent variable. Scheffe's (Abacus Concepts, 1992) post hoc analyses techniques were used, following statistically significant ANOVAs, to determine which criteria variables were responsible for the significant differences indicated by the ANOVAs. For further detail of the analyses see Appendix H.

Hypothesis 1: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents (Alpha = .05). An analysis of the one-way ANOVA which indicated no significant difference ($p = 0.2688$) is presented in Table 16.

Table 16

Means for Power of Trustees, Superintendents, Principals, and School Advisory Council Presidents

	Power
Trustees	5.406
Superintendents	5.365
Principals	5.449
School advisory council presidents	5.555

Hypothesis 2: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents based on the size of the jurisdiction. A series of analyses of variance was performed with the means of power of the selected groups as the dependent variable and the independent variable of size. Size was found to be significant with trustees at $p = < .05$. As a result of the Scheffe post hoc test, the difference occurred for trustees in jurisdictions of 3,000 or fewer students and 3001 to 4,000 students, and trustees in jurisdictions of greater than 9,001 students. The mean scores of the groups are shown in Table 17.

Hypothesis 3: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and size of jurisdictions. A series of ANOVAs were performed with the means of the subcategories. There was no significant difference found in the means for superintendents and school advisory council presidents. Size was found to be significant with trustees at $p < .05$ in the subcategories of awareness ($p = 0.0195$) and freedom to act intentionally ($p < 0.0001$). A significant difference was also found in the subcategory of involvement in creating change ($p = .0019$) for trustees (see Table 18).

As a result of the Scheffe post hoc test for the subcategory of awareness, a significant difference was shown for trustees in jurisdictions with 3,000 or fewer students and trustees in jurisdictions of greater than 9,001 student ($p = .0273$). A significant difference was also indicated in the subcategory of freedom to act intentionally for trustees in jurisdictions of 3,000 or fewer students and trustees in

Table 17

Means for the Power of Selected Groups by Size of Jurisdiction

	<u>Size of Jurisdiction</u>							
	3,000 or fewer	3,001-4,000	4,001-5,000	5001-6,000	6,001-7,000	7,001-8,000	8,001-9,000	9,001 and greater
Trustees	5.121*	5.220*	5.306					6.333*
Superintendents	5.191	5.239	5.148	5.813	5.258	5.708	6.188	5.722
Principals	5.589	5.216	5.417	5.193	5.758	6.479		5.533
SAC (Presidents)	5.469	5.783	5.519	5.486	5.375	5.464		5.608

*denotes significance at $p < .05$

jurisdictions of greater than 9,001 students ($p = .0005$). As well, a significant difference was indicated for trustees in jurisdictions of 3,001 to 4,000 students and trustees in jurisdictions of greater than 9,001 students ($p = .0012$). A significant difference was also indicated in the subcategory of freedom to act intentionally for trustees in jurisdictions of 4,001 to 5,000 students and trustees in jurisdictions of greater than 9,001 students ($p < .0001$). In the subcategory of involvement in creating change of trustees and size of the jurisdiction, a significant difference was indicated for trustees in jurisdictions of 3,000 or fewer students and trustees in jurisdictions of greater than 9,001 students ($p = .0072$). A significant difference was also indicated for trustees in jurisdictions of 3,001 to 4,000 students and trustees in jurisdictions of greater than 9,001 students ($p = .0047$).

The means scores for the subcategories for principals generated by the ANOVAs indicated the level of significance for awareness ($p = .0393$), choice ($p = .0130$), freedom to act intentionally ($p = .0246$), and involvement in creating change ($p = .0102$) (Table 15) are presented in Table 18.

Hypothesis 4: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and district or division jurisdictions. The ANOVAs for this hypothesis indicated the means of perceived power of trustees was significant at $p < 0.0001$. The Scheffe post hoc test demonstrated a significant difference for trustees in districts and divisions ($p < .0001$). However, there were no significant differences in the means for superintendents, principals, or school advisory council presidents (Table 19).

Table 18

Means for Subcategories of Awareness, Choice, Freedom to Act Intentionally, and Involvement in Creating Change of Selected Groups by Size of Jurisdiction

	<u>Size of Jurisdiction</u>							
	3,000 or fewer	3,001-4,000	4,001-5,000	5001-6,000	6,001-7,000	7,001-8,000	8,001-9,000	9,001 and greater
	<u>Awareness</u>							
Trustees	5.467*	5.731	5.944					6.333*
Superintendents	5.359	5.528	5.560	5.889	5.500	5.750	6.167	6.146
Principals	5.612	5.317	5.529	5.572	5.600	6.833		5.687
SAC (Presidents)	5.542	5.937	5.531	5.448	5.383	5.536		5.727
	<u>Choice</u>							
Trustees	4.967	4.741	4.875					5.667
Superintendents	4.928	4.804	4.934	5.463	4.883	5.167	5.833	5.125
Principals	5.548	5.119	5.312	5.000	5.583	6.583		5.373
SAC (Presidents)	5.472	5.518	5.388	5.372	5.228	5.464		5.409

Table 18 (continued)

	<u>Size of Jurisdiction</u>							
	3,000 or fewer	3,001-4,000	4,001-5,000	5001-6,000	6,001-7,000	7,001-8,000	8,001-9,000	9,001 and greater
	<u>Freedom to Act Intentionally</u>							
Trustees	5.033*	5.278*	4.667*					6.417*
Superintendents	5.160	5.042	5.094	5.861	5.117	5.750	6.333	5.583
Principals	5.617	5.232	5.396	5.000	5.917	5.583		5.495
SAC (Presidents)	5.326	5.760	5.559	5.559	5.375	5.298		5.621
	<u>Involvement in Creating Change</u>							
Trustees	5.017*	5.130*	5.736					6.917*
Superintendents	5.314	5.583	5.010	6.038	5.533	6.167	6.417	6.062
Principals	5.579	5.195	5.432	5.189	5.933	6.917		5.579
SAC (Presidents)	5.535	5.919	5.599	5.523	5.515	5.560		5.674

*denotes significance at $p < .05$

Table 19

Means for the Power of Selected Groups by Type of Jurisdiction

	Division	District
Trustees	5.080*	6.199*
Superintendents	5.467	5.020
Principals	5.432	5.464
SAC (Presidents)	5.584	5.498

*denotes significance at $p < .05$

Hypothesis 5: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and district or division jurisdictions. The means generated by the ANOVA series indicated that the perceived power of trustees from both districts and divisions showed that a significant difference existed in each of the subcategories of awareness ($p = .0003$), choice ($p = .0017$), freedom to act intentionally ($p = < .0001$), and involvement in creating change ($p = .0007$). The means for the subcategory freedom to act intentionally of the superintendent group indicated a significant difference at $p = .0551$ (Table 20). No significant difference existed for the subcategories of perceived power for principals or school advisory council presidents and district or division jurisdictions as shown in Table 20.

Table 20

Mean for Subcategory of Awareness, Choice, Freedom to Act Intentionally, and
Involvement in Creating Change for Selected Groups by Type of Jurisdiction

	Division	District
<u>Awareness</u>		
Trustees	5.637*	6.298*
Superintendents	5.664	5.408
Principals	5.584	5.567
SAC (Presidents)	5.570	5.611
<u>Choice</u>		
Trustees	4.623*	5.833*
Superintendents	5.130	4.664
Principals	5.296	5.364
SAC (Presidents)	5.497	5.301
<u>Freedom to Act Intentionally</u>		
Trustees	4.887*	6.179*
Superintendents	5.431	4.858
Principals	5.395	5.448
SAC (Presidents)	5.571	5.546
<u>Involvement in Creating Change</u>		
Trustees	5.172*	6.488*
Superintendents	5.646	5.142
Principals	5.451	5.476
SAC (Presidents)	5.696	5.534

*denotes significance at $p < .05$

Hypothesis 6: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and age. The means generated by the ANOVAs indicated that no significant difference existed in the perceived power of the selected groups and age as shown in Table 21.

Table 21

Mean for the Power of Selected Groups by Age

	<u>Age</u>			
	21-30	31-40	41-50	51-60
Trustees		5.031	5.375	5.535
Superintendents			5.449	5.288
Principals	5.243	5.519	5.420	5.516
SAC (Presidents)	5.208	5.579	5.556	5.125

Hypothesis 7: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and age. The means generated by the ANOVAs showed a significant difference for participating trustees in the subcategory of freedom to act intentionally ($p = .0026$) (Table 15). As a result of the Scheffe post hoc test in the subcategory of freedom to act intentionally, the differences occurred for trustees between the ages of 41-50 and 51-60 ($p = .0032$).

No other significant differences existed in the subcategories of perceived power for trustees, superintendents, principals, and SAC presidents and age illustrated in Table 22.

Hypothesis 8: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and gender. The means generated by the ANOVAs indicated that no significant difference existed for the selected groups and gender shown in Table 23.

Hypothesis 9: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in change and gender. A series of ANOVAs was performed with the means of the subcategories. There was no significant difference in the means of the subcategories for superintendents or school advisory council president shown in Table 24. Gender was found to be significant with trustees and the subcategories of awareness ($p = .0283$) and choice ($p = .0461$). Gender was also found to be significant with principals and the subcategory of awareness ($p = .0081$) (Table 15).

Hypothesis 10: There is no significant difference in the perceived power of the selected groups on each of the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change identified in the instrument (PKPCT V--II). The means generated by the series of ANOVAs for the selected groups and the subcategories of perceived power indicated a significant difference in the subcategory of choice ($p = .0037$).

Table 22

Mean for Subcategory of Awareness, Choice, Freedom to Act Intentionally, and Involvement in Creating Change of Selected Groups by Age

	<u>Age</u>			
	21-30	31-40	41-50	51-60
<u>Awareness</u>				
Trustees		5.208	5.840	5.954
Superintendents			5.667	5.550
Principals	5.403	5.516	5.590	5.617
SAC (Presidents)	5.417	5.675	5.534	5.139
<u>Choice</u>				
Trustees		4.917	5.122	4.778
Superintendents			5.097	4.958
Principals	5.229	5.471	5.291	5.363
SAC (Presidents)	5.083	5.466	5.401	4.944
<u>Freedom to Act Intentionally</u>				
Trustees		4.958	4.917*	5.833*
Superintendents			5.425	5.188
Principals	5.146	5.414	5.397	5.541
SAC (Presidents)	5.500	5.529	5.627	5.028
<u>Involvement in Creating Change</u>				
Trustees		5.042	5.622	5.574
Superintendents			5.610	5.460
Principals	5.208	5.675	5.403	5.539
SAC (Presidents)	4.833	5.648	5.662	5.389

*denotes significance at $p < .05$

Table 23

Means for Selected Groups by Gender

	Gender	
	Male	Female
Trustees	5.240	5.640
Superintendents	5.340	6.458
Principals	5.399	5.586
SAC (Presidents)	5.556	5.555

Table 24

Means for Subcategory of Awareness, Choice, Freedom to Act Intentionally, and
Involvement in Creating Change for Selected Groups by Gender

	<u>Gender</u>	
	Male	Female
<u>Awareness</u>		
Trustees	5.661	6.067*
Superintendents	5.587	6.417
Principals	5.503	5.789*
SAC (Presidents)	5.527	5.622
<u>Choice</u>		
Trustees	4.661	5.417*
Superintendents	5.001	6.000
Principals	5.295	5.423
SAC (Presidents)	5.440	5.414
<u>Freedom to Act Intentionally</u>		
Trustees	5.375	5.108
Superintendents	5.269	6.667
Principals	5.364	5.577
SAC (Presidents)	5.617	5.547
<u>Involvement in Creating Change</u>		
Trustees	5.262	5.967
Superintendents	5.503	6.750
Principals	5.433	5.553
SAC (Presidents)	5.641	5.636

*denotes significance at $p < .05$

The Scheffe post hoc test demonstrated a significant difference in choice existed for superintendents and school advisory council presidents ($p = .0319$) (Table 15). No significant difference was found for the selected groups in the subcategories of awareness, freedom to act intentionally, and involvement in creating change (Table 25).

Hypothesis 11: There is no correlation between institutional factors of size, position, and school configuration (grade level) and personal factors of age and years of experience and the measure of perceived power. The multiple regression summary is depicted in Table 26. The use of regression coefficients identified the significant predictive variables for the criterion variable (power). Predictor variables for power were found to be years of experience and the size of the jurisdiction.

Discussion of the analyses and the conclusions of the research findings follow in Chapter V. The summary of the study and suggestions for further research are included in the chapter.

Table 25

Means for Subcategory of Power by Position

	Awareness	Choice	Freedom to Act Intentionally	Involvement in Creating Change
Trustees	5.830	4.976	5.264	5.556
Superintendents	5.606	5.024*	5.301	5.532
Principals	5.580	5.330	5.422	5.465
SAC (Presidents)	5.597	5.421*	5.566	5.637

*denotes significance at $p < .05$

Table 26

Regression Coefficients: Effects of Predictor Variables on the Criterion Variable of Power

Predictor Variables	Power
Years of experience	.0302*
Position	.7411
Age	.6330
Size of jurisdiction	.0400*
School configuration (grade level)	.3504
R	.141
R^2	.020
F	1.985

* $p < .05$

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to measure power as the degree of knowing participation in change among Alberta trustees, superintendents, principals, and school advisory council (SAC) presidents. Since a study of this type previously had not been conducted in the field of education, the knowledge of the degree of knowing participation in change can assist participants in the educational enterprise.

The Power as Knowing Participation in Change Tool developed by Barrett (1983) was used in this investigation. The criterion variables were power and the four constructs of power referred to as awareness, choice, freedom to act intentionally, and involvement in creating change. The selection of the predictor variables was based on personal and institutional information gathered from the accompanying demographic questionnaire. These variables were identified as age, gender, position, years of experience, size of jurisdiction, and type of jurisdiction. A review of the power literature assisted in establishing the framework for recognizing traditional power concepts and the concept of power offered by Barrett (1983). This chapter presents an interpretation of the descriptive data and discusses the hypotheses found in Chapter III.

Results of the Data and Interpretation

A voluntary sample of 503 educational participants, which included superintendents, board chairpersons, school advisory council presidents, and principals, was drawn from the province of Alberta. During this study, the government of Alberta initiated a restructuring plan in education which reduced the number of superintendencies from 140 to 59, with a corresponding reduction in the number of school boards. Government legislation in education enacted provisions in the School Act (1994) requiring the formation of SACs and the establishment of responsibilities for these councils. In the course of this study, compliance with the School Act regulations in this area was in progress. This fact impacted on the return percentage of school advisory council presidents since some jurisdictions did not have active SACs.

The data for this study were drawn during a time of change in the educational scene in the province of Alberta. On January 1, 1995 the government of Alberta made amalgamation, the formation of school advisory councils, and site based management mandatory. The data was collected in May and June of that year. Trustees were in the transition of collapsing existing boards and forming new ones to accommodate the larger jurisdictions. The remaining school superintendents were engaged in the process of amalgamation and the incumbent difficulties and problems. Principals were implementing site-based management and developing strategies to comply with meeting the goals of education legislated by the government of Alberta (1992). The results of this study may be considered indicative of the individual's perception of the

degree of knowing participation in change during a "messy and confusion situation" (Rost, 1994, class notes).

Trustee Demographics

The profile of trustees who participated in this study generated from the demographic data showed similar frequencies of male and female respondents. The majority (52%) were between the age of 41-50, and 63% were from divisions with student counts between fewer than 3,000 to 5,000. The frequency distribution for years of experience indicated that 70% of the respondents were less experienced, having fewer than 13 years of experience as a trustee. Frequency distribution tables for trustees can be found in Chapter IV.

The fact that 70% of the trustees who responded had fewer than 13 of experience was indicative of the massive amalgamation initiative pursued by the provincial government. The previously existing 140 jurisdictions were reduced to 59, necessitating the collapse of 81 local school boards. The amalgamation process forced the previously existing boards to become, in large measure, transition boards whose task was to oversee the processes of amalgamation. Once the amalgamation was completed these transition boards were dissolved. The resultant restructuring involved the loss of position for many locally elected trustees and the subsequent election of "new faces," many of whom had never held elected positions in public education.

Superintendent Demographics

The profile that emerged from the demographic data for superintendents demonstrated that there were 21 respondents in the age category of 41-50, and 23 respondents in the 51-60 age category. A representative sample consistent with the

number of divisions and districts in the province of Alberta was demonstrated from each of the size categories; however, the majority (77%) of the superintendents who responded were from divisions with 3,000 or fewer students. Fifty percent of the superintendents were shown to be experienced in the position, having between 25-38 years of experience. Similar frequencies for years of experience occurred for less experienced and intermediate categories with 10 respondents in the less experienced category and 12 respondents in the intermediate category. In the frequency distribution for gender of superintendents; 98% of the respondents were male and 2% were female. This may indicate a gender bias against females as suggested by Kanter (1977) and Shakeshaft (1987) by those responsible for appointing senior administrative staff in terms of women in positions of authority, in this instance, the superintendencies in Alberta, or that females do not show an active interest in pursuing such a position in the educational arena in the province of Alberta.

Principal Demographics

Demographic data on the frequency distribution for age of principals who participated in this study produced a profile which demonstrated that 65% of principals were between the age of 41-50. Fifty-seven percent of the participating principals were in school divisions rather than districts. The frequency distribution for size of jurisdictions ranged from less than 1% from jurisdictions of 7,001 to 8,000 students to 37% from jurisdictions of greater than 9,001 students. The frequency distribution for the various school configurations ranged from 5.2% from grades 7-12 schools to 27.6% from grades 1-6 schools.. The majority (52%) of responding principals had between 25-38 years of experience, while 32% had 13 to 24 years of

experience. A discrepancy appeared in the frequency distribution of gender. Seventy-three percent of responding principals were male, while 27% were female. This seems to indicate a gender bias on the part of those responsible for the appointment of the administrative position of principal as supported by the literature (Kanter, 1977; Shakeshaft, 1987), or that women do not show an interest in pursuing this position in the province of Alberta.

School Advisory Council (SAC) President Demographics

The demographic data for school advisory council presidents produced an appreciably different profile from that of the trustees, superintendents, and principals included in this study. The frequency distribution for gender indicated that 73% of the respondents were female, a marked difference from the three aforementioned groups. The majority of SAC presidents who responded ranged in age from 31-50 (96%). This suggested that women tend to become more involved in their child's education from the position of the SAC than do men. The frequency distribution for the type of jurisdiction indicated that while 59% of the responding presidents were from divisions, 41% were from districts. This finding suggested that despite the confusion that existed in the formation of school advisory councils and their attendant responsibilities at the time of this study, both divisions and districts in the province of Alberta were attempting to meet the government requirements for the formation of these advisory bodies. Schools with grades 1-12 configurations appeared to be the most successful in establishing school advisory councils (36%), while 33% of schools with grades 1 to 6 configuration had school advisory councils. Sixteen percent of the respondents in the group were presidents of school advisory councils in grades 7 to 9

schools. From the frequency distribution table for school configurations (see Table 9), it appears that schools of grades 1 to 9, 7 to 12, and 10 to 12 experienced more difficulty in establishing active SACs. This result may be attributed to the more active interest of female parents to be involved in the education of their younger children when schools are predominantly elementary. Frequency distribution for size of jurisdictions ranged from 4% to 44%. More jurisdictions with populations of 4,001 to 5,000 students (44%) had established SACs, while 4% of jurisdictions with student populations of 7,001-8,000 had established SACs. Frequency distribution for years of experience (see Table 10) demonstrated that 93% of the SAC presidents who responded were inexperienced in the position, that is 0-12 years of experience. This lack of experience could be attributed to the fact that school advisory councils were not required until 1995 and thus many SAC presidents would not have held the position until that year. SAC presidents may not choose to participate in voluntary service in this position for an extended period of time, or they may become disillusioned in the position.

Discussing Hypotheses 1-11

The Power as Knowing Participation in Change Tool V--II instrument identified four constructs in which power could be defined: awareness, choice, freedom to act intentionally, and involvement in creating change. A framework which included the personal and institutional variables of position, age, gender, size of jurisdiction, school configuration, type of jurisdiction, and years of experience were the independent variables tested as predictors of perceived power. Analyses of the data were reviewed in Chapter IV.

Hypothesis 1: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents. From the results of the one-way ANOVA of power by position ($F = 1.315$, $p = 0.2688$), the null hypothesis that no significant difference exists between position and power was upheld. Position does not seem to be a factor in an individual's perception of power with selected education participants in the educational community of the province of Alberta. Considering the climate of change in the educational arena in the province of Alberta, none of the selected groups felt that their position afforded them an opportunity to impact, guide, or direct change more than any other stakeholder group did.

Hypothesis 2: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents based on the size of the jurisdiction. This null hypothesis was rejected for the power of trustees by the size of the jurisdiction and the power of the principals by size of the jurisdiction on the basis of the results of the ANOVAs (Appendix H). The results demonstrated that the mean value for school trustees for the power of trustees by size ($F = 4.745$, $p = .0117$), the mean value for principals for the power of principals by size ($F = 2.700$, $p = .0148$) were significantly different. The overall size of the jurisdiction influences the perceived power of these groups. The post hoc Scheffe indicated the specific difference occurred for trustees in jurisdictions of 3,000 or fewer students and trustees in jurisdictions of greater than 9,001 students. As well, a difference occurred for trustees in jurisdictions of 3,001 to 4,000 students and trustees in jurisdictions of greater than 9,001 students.

Hypothesis 3: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and size of jurisdictions. From the results of the ANOVAs of the subcategories of awareness ($F = 4.144, p = .0195$), freedom to act intentionally ($F = 16.805, p < .0001$), and involvement in creating change ($F = 7.138, p = .0019$) of the power of trustees by size of the jurisdiction, the null hypothesis was partially rejected. As well, the results of the ANOVAs of all four subcategories--awareness, choice, freedom to act intentionally, and involvement in creating change of the power of principals by the size of the jurisdiction ($F = 2.250, p = .0393$; $F = 2.758, p = .0130$; $F = 2.468, p = .0246$; $F = 2.870, p = .0102$), respectively, indicated that the null hypothesis was rejected. What can be concluded is that trustees from smaller jurisdictional sizes felt less awareness, less freedom to act intentionally, and less involvement in creating change than trustees of jurisdictions of greater than 9,001 students. Similarly, principals from smaller jurisdictions felt less power in all four subcategories.

Hypothesis 4: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and district or division jurisdictions. The results of the ANOVA of the power of trustees by type of jurisdiction (see Appendix H) demonstrated that the null hypothesis was rejected for this group. The mean value for school trustees for the power of trustees by type of jurisdiction ($F = 34.812, p < .0001$) was significantly different for division and district jurisdictions. The change initiated by Alberta Education regarding amalgamation implied that smaller jurisdictions or divisions would have

been more affected than larger jurisdictions or districts since the thrust of amalgamation was to reduce the number of smaller jurisdictions through forced amalgamation of these into larger ones. This amalgamation process necessitated the collapse of local school boards, thereby eliminating the position of local trustees of smaller jurisdictions (divisions) or forced previously elected trustees to run for election in the newly amalgamated larger jurisdictions (districts).

Hypothesis 5: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and district or division jurisdictions. From the results of the ANOVAs of the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change of trustees by the type of jurisdiction, the null hypothesis was rejected ($F = 18.045, p = .0003$; $F = 12.820, p = .0017$; $F = 72.209, p < .0001$; $F = 15.649, p = .0007$). The mean for the districts was significantly higher than that of divisions (see Appendix H). The trustees participating in this study from divisions had significantly less awareness of what their fate was to be in the amalgamation of smaller jurisdiction; they had less choice in terms of the direction of the changes proposed by Alberta Education. Their freedom to act intentionally was inhibited by the changes initiated, and they were less involved in creating the changes since these changes were mandated by the provincial government. Trustees who responded from districts felt less impact by the changes initiated by Alberta Education in terms of the four subcategories of power since large districts were not to be as greatly affected.

For superintendents, principals, and school advisory council presidents in the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change by type of jurisdiction, no significant difference was found. The null hypothesis was upheld for these groups.

Hypothesis 6: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and age. From the results of the one-way ANOVA of power by age ($F = .479$, $p = .6261$; $F = .477$, $p = .4937$; $F = .436$, $p = .7273$; $F = .710$, $p = .5474$) for each of the selected groups, respectively, the null hypothesis that no significant difference exists between age and power was upheld. The data would appear to demonstrate that an individual's perception of power is not dependent upon the age of the selected education participants in the educational community of the province of Alberta. Considering the climate of change in the educational arena in the province of Alberta, age of the selected groups as a factor, was not related to the perceived the ability to impact, guide, or direct change.

Hypothesis 7: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change and age. From the data generated by the one-way ANOVA of the subcategory of freedom to act intentionally of trustees by age ($F = 8.024$, $p = .0026$), the null hypothesis was rejected. The mean for trustees by age in the subcategory of freedom to act intentionally was significantly higher for ages 51-60 than the means for superintendents, principals, and school advisory council presidents participating in the study (see Appendix H).

Hypothesis 8: There is no significant difference in the perceived power of school trustees, superintendents, principals, and school advisory council presidents and gender. The results of the ANOVA of power by gender for trustees ($F = 2.2229$, $p = .1497$), for superintendents ($F = 2.127$, $p = .1521$), for principals ($F = 3.276$, $p = .0715$), and for school advisory council presidents ($F = 2.190$, $p = .9882$) demonstrate that the null hypothesis, that no significant difference exists between gender and power, was upheld.

Hypothesis 9: There is no significant difference in the perceived power of the selected groups on the subcategories of awareness, choice, freedom to act intentionally, and involvement in change and gender. From the result of the one-way ANOVA of the subcategories awareness by gender of trustees ($F = 5.512$, $p = .0283$) and choice by gender of trustees ($F = 4.469$, $p = .0461$), as well as awareness by gender of principals ($F = 7.116$, $p = .0081$), the null hypothesis was rejected for these groups (see Table 24). The means for female trustees was significantly higher than that of male trustees in the subcategories of awareness and choice. The mean for female principals was significantly higher than their male counterparts in the subcategory of awareness (see Appendix H). The data appear to support the concept that female trustees were more aware of their choices in their position as a trustee. The same concept may be suggested for female principals. For superintendents and school advisory council presidents, no significant difference was found in any of the subcategories of power.

Hypothesis 10: There is no significant difference in the perceived power of the selected groups on each of the subcategories of awareness, choice, freedom to act

intentionally, and involvement in creating change identified in the instrument (PKPCT V--II). From the results of the ANOVA for the subcategory of choice by each of these lected groups (see Appendix H), the null hypothesis was rejected for SAC presidents. The mean value for SAC presidents for the subcategory of choice ($F=4.550$, $p = .0037$) was significantly higher than that of superintendents. The null hypothesis was upheld for trustees and principals.

The presidents of the school advisory councils who participated in this study indicated they had more choice in their participation in change than did superintendents. The superintendents in the province of Alberta are bounded by the directives of Alberta Education in terms of the changes to be brought about in education. The duties and responsibilities of school advisory council presidents were not defined by Alberta Education at the time of this study, allowing a much broader choice for individuals who held this position in the educational field.

Hypothesis 11: There is no correlational relationship between institutional factors of size, position, and school configuration (grade level), and personal factors of age and years of experience and the measure of perceived power. The hypothesis was upheld when considering all predictive variables ($F = 1.985$, $p = .0794$). The predictor variables of years of experience and size of the jurisdiction ($p < .05$) indicated that they are both factors which contribute to power.

Conclusions

The purpose of this study was to discover the measure of perceived power of selected educational groups in influencing change in the province of Alberta. The

groups selected for study--school trustees, superintendents, principals, and school advisory council presidents--were identified as pivotal to enacting government mandates in education and to bring about real, intended change. The research was conducted using demographic information provided by each of the 503 participants and the Power as Knowing Participation in Change Tool, V--II developed by Barrett (1986) which operationalized the definition of power as:

. . . the capacity to knowingly participate in the nature of change characterizing the continuous patterning of the human and environmental fields as manifested by awareness, choices, freedom to act intentionally, and involvement in creating change. . . . Power is being aware of what is choosing to do, feeling free to do it, and doing it intentionally. (p. 108)

In the implementation of the changes initiated by Alberta Education, the school trustees, superintendents, principals, and school advisory council presidents involved in the change must feel their personal (holistic) power to operationalize what has been proposed. All participants must actualize their potential to be aware, recognize their choices, act intentionally, and knowingly participate in the change if change is to be meaningful and effective.

The first question posed was what is the perceived power of selected education participants in Alberta in influencing change at the onset of important educational changes mandated by Alberta Education? To deal with this question it is of paramount importance to recall the background in which the study was conducted. Massive changes to the educational setting in the province of Alberta were in the initial stages, but to many individuals directly affected by these changes, they seemed to have been

rapidly instituted by the stroke of the minister's pen. In the wake of the immediate impact of restructuring, amalgamation, and changes to the funding of public education, many stakeholders in the field of education felt buffeted by the winds of change.

The research findings provided numerical data to assess the relative total power of each of the selected groups. According to Barrett (1986), the higher the power score the greater the perceived power. This framework allowed the groups to be rank ordered. Barrett (1986) contended power is relative, that it is a felt cognizant activity that manifests itself in a variety of forms. School advisory council presidents felt the highest power, followed by principals and trustees; superintendents felt the least power. It may be that the education participants furthest removed from the "business" of implementing educational change recognized their potential for participation in the change. At the onset of the change, school advisory councils were to have broad, sweeping, inclusive duties and responsibilities regarding educational decisions and practices at the school level. Both trustees and superintendents felt the immediate impact of implementing the changes which created the feeling of being used as instruments to "make" change occur. Their position dictated participation. In short, school advisory council presidents felt empowered, while trustees and superintendents felt disempowered.

The second research question raised in Chapter I queried what differences existed in perceived power of the selected education participants in Alberta based on personal (age, gender, years of experience) and institutional (position, size, type, and school configuration [grade level]) variables. The means generated for the four

constructs of power—awareness, choice, freedom to act intentionally, and involvement in creating change—identified that a significant difference in the power of trustees existed in the subcategories of awareness and choice for males and females. Female trustees appeared to have more awareness of the changes in the educational field than male trustees and recognized more choices in terms of the changes. An observation to be made could be, as the literature suggested (Kanter, 1977; Shakeshaft, 1987; Helgesen, 1990), that women are more inclined to seek collaborative approaches to decision making. This tendency implies more willingness than men to elicit a variety of information, views, and opinions from others, thereby increasing women's awareness and expanding their choices in terms of dealing with change situations.

Trustees of very small jurisdictions felt less powerful than trustees in jurisdictions of greater than 9,001 students (see Table 6). A significant difference existed in the means for trustees of awareness, freedom to act intentionally, involvement in creating change, and the size of the jurisdiction. In general, trustees from divisions felt less perceived power than did trustees from districts.

A significant difference existed in the means for principals on the subcategory of awareness and gender (see Table 11). Female principals had more awareness than did their male counterparts, in keeping with women's tendency to solicit and share information in the decision-making process (Helgesen, 1990).

A significant difference existed in the means for the subcategory of choice and position (see Table 18). School advisory council presidents felt more powerful than did superintendents. The mandated requirement of the provincial government to establish school advisory councils for all schools in the province of Alberta outlined

the duties and responsibilities for these advisory groups. Many of these duties and responsibilities previously had been the prerogative of trustees, superintendents, and principals. The greater feeling of choice for school advisory council presidents could be explained by their perception of an increased opportunity to make choices that impact education.

The third research question posed by the study was, what personal and institutional factors contribute to the perceived power of selected education participants in Alberta? The personal factors which contributed to the perceived power of trustees were age and gender. Older trustees had more perceived power in the subcategory of freedom to act intentionally than did younger trustees. Female trustees had greater perceived power in the subcategories of awareness and choice than did their counterparts. The institutional factors contributing to the perceived power of trustees were size and type of jurisdiction. Trustees in districts had more perceived total power, more awareness, choice, freedom to act intentionally, and involvement in creating change than did trustees in divisions. The only personal factor contributing to the perceived power of principals was gender. Female principals had more awareness than did male principals. The only institutional factor contributing to the perceived power of principals was size. Principals in jurisdictions with student populations of fewer than 4,000 had more perceived power than did principals in jurisdictions with student populations of 7,001 to 8,000.

The purpose of this study was to measure power as the degree of knowing participation in change among Alberta trustees, superintendents, principals, and school advisory council presidents. It was also the purpose to determine if personal and

institutional variables influenced the knowing participation in change manifested by awareness, choice, freedom to act intentionally, and involvement in creating change of these selected groups. The measure of power of individuals within the selected groups indicated their ability to be meaningfully involved and reflected the potential to make a difference in the creation of their reality, and to bring about real, intended change in the field of education in the province of Alberta. Individuals who perceived themselves as being aware of what they were choosing to do, feeling free to do it, and doing it intentionally are participating in change (Barrett, 1986; Covey, 1994).

Power, defined as the capacity to knowingly participate in change, provides the theoretical basis for the assessment of the perceived power in influencing change among Alberta trustees, superintendents, principals, and school advisory council presidents. The synergistic interrelation of the concepts of awareness and choice, freedom to act intentionally, and involvement in creating change constitutes the theory of power whereby human beings participate in the innovative creation of their reality. Assessing the degree of knowing participation in change of the groups selected may serve as an indicator of their commitment to change in the province of Alberta.

Implications of the Study

Based on the theoretical framework of Barrett (1986), this study assesses the perceived power of Alberta trustees, superintendents, principals, and school advisory council presidents during a time of educational change. The definition of power proffered by Barrett (1986) identified the four constructs of awareness, choice, freedom to act intentionally, and involvement in creating change. The Power As

Knowing Participation in Change Test, Version II was used to generate a total power score for each of the groups and subcategory scores for each of the four constructs.

Why are the findings of the study important and how can the study be useful?

Knowledge of the perceived power of stake holder groups in education has implications for educational policy makers. Alberta Education mandated changes in provincial education through legislation. There was no apparent consideration given to the effect such legislation may have on the groups charged with carrying out the mandates. The result of the mandated change was the loss of perceived power by the trustees and superintendents, while principals and SAC presidents felt empowered. An implication may be that government action in education is viewed by the groups selected for this study as a power trade off, empowering some while disempowering others. In this study, those who perceived themselves with decreased power were the groups initially responsible for making the changes happen. This situation could be problematic given the government's intent to empower all participants (Government of Alberta, 1992, p. 2).

Establishing a measure of the degree of perceived power of trustees, superintendents, principals, and school advisory council presidents would be necessary in order to assess their ability to become meaningfully involved in educational changes in the province of Alberta. This measure provides an initial insight into each group's awareness, choice, freedom to act intentionally, and involvement in creating change. Knowing the degree of perceived power of the groups included in this study is useful in assessing the commitment each group may have to change. The ability to identify groups whose commitment to change is strong, and to appeal to those groups

when proposing change, may increase the opportunity for meaningful change to occur. Paying lip service to change because of its mandatory nature does not mean participants will commit to and grow with change. Trustees, superintendents, principals, and school advisory council presidents, or any other stake holder group in the education enterprise who are aware of change, feel they have choices, and can act intentionally are involved in creating change and will more likely be committed to creating innovative methods to ensure meaningful change occurs.

Policymakers in education from government, professional organizations such as the ATA, to school based decision makers may utilize the knowledge of education participants' perceived power to devise policies for change that appeal to specific groups whose perceived power would make them more receptive. By targeting specific education groups with high degrees of perceived power, the likelihood of commitment to meaningful change may be increased. For example, in this study, principals and school advisory council presidents are identified as potentially powerful forces for change. Regulations, guidelines, and initiatives aimed at fostering these participants' actual power and influence should help create desired change in the existing Alberta educational system.

Devising implementation strategies for proposed educational change would be enhanced if policymakers understood the perceived power of individual groups to be effected by the change. Appropriate strategies could be designed to heighten the awareness, choices, freedom to act intentionally, or involvement in creating change of selected groups. Implementation strategies, such as workshops, discussion groups, exchanges, or mentoring designed to heighten any one or all of the power constructs

for targeted groups would more effectively motivate education participants to activate their perceived power to commit and contribute to change in a constructive, collaborative manner. Recognition of the perceived power of individual stake holder groups in the creation of change in education would enhance the possibility of personal commitment to and ownership of change. Superintendents and trustees need to recognize the actual power they continue to possess. Further, these important stake holders need to learn how to use that power in a new educational environment undergoing massive and frequent changes.

Recommendations for Future Research

The following are suggestions for further study in the power as knowing participation in change area:

1. Replicate this study with Alberta trustees, superintendents, principals, and school advisory council presidents in 1997 when the government's proposed changes in Alberta education are completed to compare results with the results of this study.
2. Determine the perceived power of other groups involved in the educational process, for example, teachers, students, counsellors, and Alberta education officials, while changes are occurring in education and when changes have been completed.
3. Examine the effect of variables such as level of education, scope of responsibilities, cultural origins, and socioeconomic status on the perceived power of trustees, superintendents, principals, and school advisory council presidents in the province of Alberta.
4. Replicate this study in other provinces with different legislation regarding education using trustees, superintendents, principals, and school advisory council

presidents. The findings may give insight into the effect of government action in educational change and the perceived power of individuals impacted by change.

Determining the perceived power of individuals and of the subcategories of awareness, choice, freedom to act intentionally, and involvement in creating change may assist in the design of implementation strategies to enhance individuals' perceived power and their commitment to change.

5. Conduct a follow-up study with the same groups using qualitative research approaches to gather in-depth information why certain groups (trustees, SAC presidents) report more aspects of power than do other respondents. Personal interviews and responses to situational queries requiring the use of power may prove valuable in determining why power is not perceived in the same way by all parties involved in educational change in Alberta.

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APPENDICES

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APPENDIX A
APPROVAL LETTERS

Calgary Board of Education

We open minds for life.

DEPARTMENT OF RESEARCH AND SYSTEM DEVELOPMENT

*Viscount Bennett Centre
2519 Richmond Road S.W., Calgary, Alberta T3E 4M2*

May 17, 1995

Mr. Frederick Preston
408 - 1 Street West
Brooks, AB
T1R 0V8

Dear Frederick Preston:

Re: Your Research Proposal "A Measure of Perceived Power in Influencing Change Among Selected Education Participants in Alberta"

This letter is to advise you that permission to conduct the above referenced research project within the Calgary Board of Education has been approved by this office. The permission granted only indicates that we have no objection to the proposed study, provided that anonymity and confidentiality of the data are guaranteed. Final decision to participate in the study rests with the selected participants.

Upon completion of the project, please forward a copy of the findings to the Assessment Group.

We wish you success with your study.

Yours sincerely,

**George Ditto, System Principal (Assessment)
Department of Research and System Development**

GD/eg

"To Ensure Individual Student Development Through Effective Education"

Council on School Administration

The Alberta Teachers' Association

(403) 453-2411

From Calgary 263-4774

11010 - 142 Street, Edmonton T5N 2R1
From elsewhere in Alberta 1-800-232-7208

March 21, 1995

MEMO TO: Human Subjects Committee
University of San Diego

FROM: South East Alberta Council of School Administrators

RE: F.A. Preston

This letter is sent in accordance with the requirement of your university. This body hereby acknowledges support of the research to be undertaken by Frederick Arnold Preston in connection with his doctoral dissertation entitled "A Measure of Perceived Power In Influencing Change Among Selected Educational Participants in Alberta".

We will encourage the full participation of subjects selected from the pool of principals, SAC's, superintendents and Board Chairman in Alberta.

Yours truly,

Al Bellamy

CASS

Office: 3605 Redwood Road, Lethbridge, Alberta T1K 3R1 Phone: (403) 329-0820 Fax (403) 380-2991

April 17, 1995

TO: HUMAN SUBJECTS COMMITTEE,
UNIVERSITY OF SAN DIEGORE: SUPPORT OF RESEARCH OF ARNOLD PRESTON

The College of Alberta School Superintendents actively supports F.A. Preston in his research for a doctorate degree. As a community of learners, this organization is willing to encourage research for the improvement of our understanding of the complexities of the education process.

Yours truly,

Robert Plaxton, Ph. D.
Executive Director, CASS

CONFERENCE OF ALBERTA SCHOOL SUPERINTENDENTS

APPENDIX B
THE INSTRUMENT

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG
SELECTED EDUCATION PARTICIPANTS IN ALBERTA

BARRETT PKPCT, VII

Check the spaces below that best reflect your feelings about your
AWARENESS. Make one check for each bipolar set of words.

MY AWARENESS IS

profound	_____	_____	_____	_____	_____	superficial
avoiding	_____	_____	_____	_____	_____	seeking
valuable	_____	_____	_____	_____	_____	worthless
unintentional	_____	_____	_____	_____	_____	intentional
timid	_____	_____	_____	_____	_____	assertive
leading	_____	_____	_____	_____	_____	following
chaotic	_____	_____	_____	_____	_____	orderly
expanding	_____	_____	_____	_____	_____	shrinking
pleasant	_____	_____	_____	_____	_____	unpleasant
uninformed	_____	_____	_____	_____	_____	informed
free	_____	_____	_____	_____	_____	constrained
unimportant	_____	_____	_____	_____	_____	important
unpleasant	_____	_____	_____	_____	_____	pleasant

Check the spaces below that best reflect your feelings about your
CHOICES. make one check for each bipolar set of words.

MY CHOICES ARE

shrinking	_____	_____	_____	_____	_____	expanding
seeking	_____	_____	_____	_____	_____	avoiding
assertive	_____	_____	_____	_____	_____	timid
important	_____	_____	_____	_____	_____	unimportant
orderly	_____	_____	_____	_____	_____	chaotic
intentional	_____	_____	_____	_____	_____	unintentional
unpleasant	_____	_____	_____	_____	_____	pleasant
constrained	_____	_____	_____	_____	_____	free
worthless	_____	_____	_____	_____	_____	valuable
following	_____	_____	_____	_____	_____	leading
superficial	_____	_____	_____	_____	_____	profound
informed	_____	_____	_____	_____	_____	uninformed
timid	_____	_____	_____	_____	_____	assertive

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of author. Inquiries: Dr. E.A.M. Barrett, 415 East 85th Street, New York, NY 10029

(Please Turn OVER and continue)

BARRETT PKPCT, VII PART 2

Check the spaces below that best reflect your feelings about your **FREEDOM TO ACT INTENTIONALLY**. Make one check for each bipolar set of words.

MY FREEDOM TO ACT INTENTIONALLY IS

timid	☐	☐	☐	☐	☐	☐	assertive
uninformed	☐	☐	☐	☐	☐	☐	informed
leading	☐	☐	☐	☐	☐	☐	following
profound	☐	☐	☐	☐	☐	☐	superficial
expanding	☐	☐	☐	☐	☐	☐	shrinking
unimportant	☐	☐	☐	☐	☐	☐	important
valuable	☐	☐	☐	☐	☐	☐	worthless
chaotic	☐	☐	☐	☐	☐	☐	orderly
avoiding	☐	☐	☐	☐	☐	☐	seeking
free	☐	☐	☐	☐	☐	☐	constrained
unintentional	☐	☐	☐	☐	☐	☐	intentional
pleasant	☐	☐	☐	☐	☐	☐	unpleasant
orderly	☐	☐	☐	☐	☐	☐	chaotic

Check the spaces below that best reflect your feelings about your **INVOLVEMENT IN CREATING CHANGE**. make one check for each bipolar set of words.

MY INVOLVEMENT IN CREATING CHANGE IS

unintentional	☐	☐	☐	☐	☐	☐	intentional
expanding	☐	☐	☐	☐	☐	☐	shrinking
profound	☐	☐	☐	☐	☐	☐	superficial
chaotic	☐	☐	☐	☐	☐	☐	orderly
free	☐	☐	☐	☐	☐	☐	constrained
valuable	☐	☐	☐	☐	☐	☐	worthless
uninformed	☐	☐	☐	☐	☐	☐	informed
avoiding	☐	☐	☐	☐	☐	☐	seeking
leading	☐	☐	☐	☐	☐	☐	following
unimportant	☐	☐	☐	☐	☐	☐	important
timid	☐	☐	☐	☐	☐	☐	assertive
pleasant	☐	☐	☐	☐	☐	☐	unpleasant
superficial	☐	☐	☐	☐	☐	☐	profound

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THANK YOU

APPENDIX C
CONSENT FORM TO ACT AS A RESEARCH SUBJECT

**UNIVERSITY OF SAN DIEGO
CONSENT TO ACT AS A RESEARCH SUBJECT**

Arnold Preston, Deputy Superintendent of the Grasslands Regional Division and a doctoral student and the University of San Diego is conducting a research study that will examine a measure of power as knowing participation in change. Since I have been selected to participate in this study, I understand that I will be completing a questionnaire along with selected demographic information.

I understand that participation in the study should not involve any risks or discomfort to me except for the possible minor fatigue as a result of the fifteen to twenty minutes of time to answer the questions on the questionnaire.

I understand that my participation in this study is entirely voluntary. I understand that I may refuse to participate or withdraw at any time without jeopardy to my job or professional standing in my school jurisdiction.

I understand my research records will be kept completely confidential. I further understand that the coding numbers used for identification of each questionnaire are for follow-up procedures only and that after the questionnaires and consent forms have been returned the master list of names and code numbers, kept under lock at the central office of the Grasslands Regional Division, will be destroyed. I further understand that all information I give on the questionnaire will appear in summary or statistical form so that I may not be identified and that my identity cannot be disclosed without consent as required by law. I further understand that to preserve my anonymity only group data will be used in any publication of the results of this study.

Arnold Preston has explained his study to me in a covering letter and has supplied his office phone number, 1-403-362-2555, should I encounter any difficulties or have any questions.

There are no other agreements, written or verbal, related to this study beyond that expressed on this consent form. I have received a copy of this consent form.

I, the undersigned, understand the above explanations and, on that basis, I give consent to my voluntary participation in this research.

Signature of Subject

Date

Location

Signature of Witness

Date

Signature of Researcher

Date

PLEASE RETURN THE SIGNED CONSENT FORM AND COMPLETED QUESTIONNAIRE
IN THE ENVELOPE PROVIDED

OR

PLEASE RETURN THE UNSIGNED CONSENT FORM AND THE BLANK QUESTIONNAIRE
IF YOU HAVE ELECTED NOT TO PARTICIPATE IN THE RESEARCH PROJECT

****This consent form is a requirement of the University of San Diego's Human Subjects Committee for faculty and dissertation research studies.**

APPENDIX D
COVER LETTER TO SELECTED GROUPS

Dear Participant:

YOU have been selected to take part in an educational research study. Consider the changes that are presently happening in education in the province of Alberta and your ability to influence change?

HOW ARE YOU CHANGING TO ACCOMMODATE EDUCATIONAL CHANGES?

WHICH DIRECTION ARE YOU HEADING?

In light of your present role as a board chairperson, superintendent, principal, or school advisory council president

- Do you feel your capacity to influence change has been affected recently?
- Is there a difference in how you view your capacity to change and your capacity to influence educational changes?

I am exploring these questions, and I'd like to share the answers with you. Not only will you be making an important contribution, you may also find the results interesting and valuable.

In order that the findings of this doctoral dissertation research be truly representative, it is important that each selected person participate. I need 100% return. Only you can make that possible. Please read the directions carefully. Make a response for every item on every page. Please answer as honestly as you can from your viewpoint of the role you play in influencing educational change?

I know your time is valuable. However, your cooperation is greatly appreciated. If you choose not to participate, return the unused materials in the stamped, addressed envelope.

APPENDIX E
INSTRUCTIONS FOR COMPLETION OF THE INSTRUMENT

DIRECTIONS

The purpose of this test is to measure the meanings of certain ideas to you as a superintendent and having you judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these ideas mean to you as a superintendent in light of the current changes in education. At the top of each page you will see the idea to be judged and a set of scales beneath it. You are to rate the idea on each of these scales in order. Do not skip any of the ratings.

For example, if you feel that the idea, "As a superintendent, my Choices are", is very closely related to one end of the scale, place your X as follows:

If you feel that the idea is quite closely related to one or the other end of the scale, place your X as follows:

If you feel that the idea is only slightly related to one side as opposed to the other, place your X as follows:

If you feel the the idea is neutral, equally associated with both sides of the scale, or is completely irrelevant, you should place your X in the middle space as follows:

Make an independent judgment on each descriptive scale. Do not try to remember how you checked similar items earlier in the test. Work at a fairly high speed, recording your first impression or feeling about an item.

IMPORTANT: Make one mark on every scale for every idea. Do not omit any. Try to differentiate your responses. Do not mark just the end and middle categories. Respond as honestly as you can in your role as superintendent. There are no right or wrong answers.

DIRECTIONS

The purpose of this test is to measure the meanings of certain ideas to you as a principal and having you judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these ideas mean to you as a principal in light of the current changes in education. At the top of each page you will see the idea to be judged and a set of scales beneath it. You are to rate the idea on each of these scales in order. Do not skip any of the ratings.

For example, if you feel that the idea, "As a principal, my Choices are", is very closely related to one end of the scale, place your X as follows:

If you feel that the idea is quite closely related to one or the other end of the scale, place your X as follows:

If you feel that the idea is only slightly related to one side as opposed to the other, place your X as follows:

If you feel the the idea is neutral, equally associated with both sides of the scale, or is completely irrelevant, you should place your X in the middle space as follows:

Make an independent judgment on each descriptive scale. Do not try to remember how you checked similar items earlier in the test. Work at a fairly high speed, recording your first impression or feeling about an item.

IMPORTANT: Make one mark on every scale for every idea. Do not omit any. Try to differentiate your responses. Do not mark just the end and middle categories. Respond as honestly as you can in your role as principal. There are no right or wrong answers.

DIRECTIONS

The purpose of this test is to measure the meanings of certain ideas to you as a school board chairperson and having you judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these ideas mean to you as a school board chairperson in light of the current changes in education. At the top of each page you will see the idea to be judged and a set of scales beneath it. You are to rate the idea on each of these scales in order. Do not skip any of the ratings.

For example, if you feel that the idea, "As a school board chairperson, my Choices are", is very closely related to one end of the scale, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel that the idea is quite closely related to one or the other end of the scale, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel that the idea is only slightly related to one side as opposed to the other, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel the the idea is neutral, equally associated with both sides of the scale, or is completely irrelevant, you should place your X in the middle space as follows:

shrinking ————— expanding

Make an independent judgment on each descriptive scale. Do not try to remember how you checked similar items earlier in the test. Work at a fairly high speed, recording your first impression or feeling about an item.

IMPORTANT: Make one mark on every scale for every idea. Do not omit any. Try to differentiate your responses. Do not mark just the end and middle categories. Respond as honestly as you can in your role as school board chairperson. There are no right or wrong answers.

DIRECTIONS

The purpose of this test is to measure the meanings of certain ideas to you as a school advisory council president and having you judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these ideas mean to you as a school advisory council president in light of the current changes in education. At the top of each page you will see the idea to be judged and a set of scales beneath it. You are to rate the idea on each of these scales in order. Do not skip any of the ratings. For example, if you feel that the idea, "As a school advisory council president, my Choices are", is very closely related to one end of the scale, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel that the idea is quite closely related to one or the other end of the scale, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel that the idea is only slightly related to one side as opposed to the other, place your X as follows:

shrinking ————— expanding
shrinking ————— expanding

If you feel the the idea is neutral, equally associated with both sides of the scale, or is completely irrelevant, you should place your X in the middle space as follows:

shrinking ————— expanding

Make an independent judgment on each descriptive scale. Do not try to remember how you checked similar items earlier in the test. Work at a fairly high speed, recording your first impression or feeling about an item.

IMPORTANT: Make one mark on every scale for every idea. Do not omit any. Try to differentiate your responses. Do not mark just the end and middle categories. Respond as honestly as you can in your role as school advisory council president. There are no right or wrong answers.

APPENDIX F

LETTER OF CONSENT TO USE INSTRUMENT

HUNTER COLLEGE

of The City University of New York

Hunter-Bellevue School of Nursing • 425 East 25th Street, New York, N.Y. 10010 • (212) 481-4465 & 4465

Director of Graduate Program

This letter is to grant permission to

for use of the Power as Knowing Participation in
Change Tool for your thesis. There is no charge
to students for one time use of the tool for your
research. However, I do request that you send me
a copy of your completed thesis.

Good luck in your work.

Elizabeth Ann Manhart Barrett, Ph.D., R.N., F.A.A.N.
Associate Professor

EAMB/mb

APPENDIX G

COMPUTER PRINTOUTS FOR THE SIGNIFICANT

ONE-WAY ANALYSES OF VARIANCE

One - Way ANOVA of Power of Trustees by Size

ANOVA Table for Mean of Power

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	3	4.219	1.406	4.745	.0117
Residual	20	5.927	.296		

Model II estimate of between component variance: .191

3 cases were omitted due to missing values.

Means Table for Mean of Power

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	5	5.121	.634	.284
(3001 - 4000)	9	5.220	.734	.245
(4001 - 5000)	6	5.306	.022	.009
(greater than 9001)	4	6.333	0.000	0.000

3 cases were omitted due to missing values.

Interaction Bar Plot for Mean of Power

Effect: Size

Cell

3 cases were omitted due to missing values.

Scheffe for Mean of Power
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
(3000 or Fewer), (3001 - 4000)	-.099	.926	.9908	
(3000 or Fewer), (4001 - 5000)	-.185	1.005	.9564	
(3000 or Fewer), (greater than 9001)	-1.213	1.113	.0295	S
(3001 - 4000), (4001 - 5000)	-.086	.875	.9929	
(3001 - 4000), (greater than 9001)	-1.113	.997	.0249	S
(4001 - 5000), (greater than 9001)	-1.028	1.071	.0632	

3 cases were omitted due to missing values.

One - Way ANOVA of Awareness of Trustees by Size

ANOVA Table for Mean for Awareness

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	3	1.839	.613	4.144	.0195
Residual	20	2.959	.148		

Model II estimate of between component variance: .08
3 cases were omitted due to missing values.

Means Table for Mean for Awareness
Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	5	5.467	.622	.278
(3001 - 4000)	9	5.731	.381	.127
(4001 - 5000)	6	5.944	.222	.090
(greater than 9001)	4	6.333	0.000	0.000

3 cases were omitted due to missing values.

3 cases were omitted due to missing values.

Scheffe for Mean for Awareness
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
(3000 or Fewer), (3001 - 4000)	-.265	.654	.6813	
(3000 or Fewer), (4001 - 5000)	-.478	.710	.2712	
(3000 or Fewer), (greater than 9001)	-.867	.787	.0273	S
(3001 - 4000), (4001 - 5000)	-.213	.618	.7770	
(3001 - 4000), (greater than 9001)	-.602	.705	.1127	
(4001 - 5000), (greater than 9001)	-.389	.757	.4992	

3 cases were omitted due to missing values.

One - Way ANOVA of Freedom to Act Intentionally of Trustees by Size

ANOVA Table for Mean for Freedom to Act intentionality

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	3	7.723	2.574	16.805	<.0001
Residual	20	3.064	.153		

Model II estimate of between component variance: .417

3 cases were omitted due to missing values.

Means Table for Mean for Freedom to Act intentionality
Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	5	5.033	.495	.221
(3001 - 4000)	9	5.278	.460	.153
(4001 - 5000)	6	4.667	.279	.114
(greater than 9001)	4	6.417	0.000	0.000

3 cases were omitted due to missing values.

Interaction Bar Plot for Mean for Freedom to Act intentionality
Effect: Size

3 cases were omitted due to missing values.

Scheffe for Mean for Freedom to Act intentionality

Effect: Size

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
(3000 or Fewer), (3001 - 4000)	-.244	.666	.7421	
(3000 or Fewer), (4001 - 5000)	.367	.723	.5095	
(3000 or Fewer), (greater than 9001)	-1.383	.800	.0005	S
(3001 - 4000), (4001 - 5000)	.611	.629	.0589	
(3001 - 4000), (greater than 9001)	-1.139	.717	.0012	S
(4001 - 5000), (greater than 9001)	-1.750	.770	<.0001	S

3 cases were omitted due to missing values.

One - Way ANOVA of Involvement in Creating Change of Trustees by Size

ANOVA Table for involvement in Creating Change

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	3	10.691	3.564	7.138	.0019
Residual	20	9.985	.499		

Model II estimate of between component variance: .528

3 cases were omitted due to missing values.

Means Table for involvement in Creating Change

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	5	5.017	.644	.288
(3001 - 4000)	9	5.130	.996	.332
(4001 - 5000)	6	5.736	.281	.115
(greater than 9001)	4	6.917	0.000	0.000

3 cases were omitted due to missing values.

Interaction Bar Plot for involvement in Creating Change
Effect: Size

3 cases were omitted due to missing values.

Scheffe for involvement in Creating Change

Effect: Size

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
(3000 or Fewer), (3001 - 4000)	-.113	1.202	.9937	
(3000 or Fewer), (4001 - 5000)	-.719	1.304	.4387	
(3000 or Fewer), (greater than 9001)	-1.900	1.445	.0072	S
(3001 - 4000), (4001 - 5000)	-.606	1.135	.4662	
(3001 - 4000), (greater than 9001)	-1.787	1.295	.0047	S
(4001 - 5000), (greater than 9001)	-1.181	1.391	.1157	

3 cases were omitted due to missing values.

One - Way ANOVA of the Power of the Principal by the Size of the Jurisdiction

ANOVA Table for Power

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	6	8.200	1.367	2.700	.0148
Residual	239	120.986	.506		

Model II estimate of between component variance: .027

2 cases were omitted due to missing values.

Means Table for Power

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	47	5.589	.664	.097
(3001 - 4000)	47	5.216	.941	.137
(4001 - 5000)	32	5.417	.682	.121
(5001 - 6000)	22	5.193	.725	.155
(6001 - 7000)	5	5.758	.178	.080
(7001 - 8000)	2	6.479	0.000	0.000
(greater than 9001)	91	5.533	.618	.065

2 cases were omitted due to missing values.

2 cases were omitted due to missing values.

Scheffe for Power
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
(3000 or Fewer), (3001 -...	.373	.526	.3774
(3000 or Fewer), (4001 -...	.172	.584	.9810
(3000 or Fewer), (5001 -...	.396	.658	.5906
(3000 or Fewer), (6001 -...	-.170	1.198	.9997
(3000 or Fewer), (7001 -...	-.890	1.839	.8076
(3000 or Fewer), (greate...	.055	.458	.9999
(3001 - 4000), (4001 - 5...	-.201	.584	.9572
(3001 - 4000), (5001 - 6...	.023	.658	>.9999
(3001 - 4000), (6001 - 7...	-.542	1.198	.8531
(3001 - 4000), (7001 - 8...	-1.263	1.839	.4207
(3001 - 4000), (greater t...	-.318	.458	.4072
(4001 - 5000), (5001 - 6...	.225	.706	.9712
(4001 - 5000), (6001 - 7...	-.341	1.225	.9856
(4001 - 5000), (7001 - 8...	-1.062	1.857	.6509
(4001 - 5000), (greater t...	-.116	.524	.9958
(5001 - 6000), (6001 - 7...	-.566	1.262	.8590
(5001 - 6000), (7001 - 8...	-1.287	1.881	.4266
(5001 - 6000), (greater t...	-.341	.605	.6681
(6001 - 7000), (7001 - 8...	-.721	2.131	.9612
(6001 - 7000), (greater t...	.225	1.170	.9981
(7001 - 8000), (greater t...	.946	1.821	.7490

2 cases were omitted due to missing values.

One - Way ANOVA of Awareness of Principals by the Size of the Jurisdiction

ANOVA Table for Awareness

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	6	7.558	1.260	2.250	.0393
Residual	239	133.787	.560		

Model II estimate of between component variance: .022

2 cases were omitted due to missing values.

Means Table for Awareness

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	47	5.612	.669	.098
(3001 - 4000)	47	5.317	1.088	.159
(4001 - 5000)	32	5.529	.813	.144
(5001 - 6000)	22	5.572	.589	.126
(6001 - 7000)	5	5.600	.450	.201
(7001 - 8000)	2	6.833	0.000	0.000
(greater than 9001)	91	5.687	.578	.061

2 cases were omitted due to missing values.

2 cases were omitted due to missing values.

Scheffe for Awareness
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
(3000 or Fewer), (3001 - 4000)	.295	.553	.7232
(3000 or Fewer), (4001 - 5000)	.084	.614	.9997
(3000 or Fewer), (5001 - 6000)	.040	.692	>.9999
(3000 or Fewer), (6001 - 7000)	.012	1.260	>.9999
(3000 or Fewer), (7001 - 8000)	-1.221	1.934	.5314
(3000 or Fewer), (greater than 9001)	-.074	.481	.9995
(3001 - 4000), (4001 - 5000)	-.211	.614	.9578
(3001 - 4000), (5001 - 6000)	-.255	.692	.9417
(3001 - 4000), (6001 - 7000)	-.283	1.260	.9955
(3001 - 4000), (7001 - 8000)	-1.516	1.934	.2521
(3001 - 4000), (greater than 9001)	-.369	.481	.2769
(4001 - 5000), (5001 - 6000)	-.043	.742	>.9999
(4001 - 5000), (6001 - 7000)	-.071	1.288	>.9999
(4001 - 5000), (7001 - 8000)	-1.305	1.953	.4572
(4001 - 5000), (greater than 9001)	-.158	.551	.9830
(5001 - 6000), (6001 - 7000)	-.028	1.327	>.9999
(5001 - 6000), (7001 - 8000)	-1.261	1.978	.5187
(5001 - 6000), (greater than 9001)	-.115	.636	.9987
(6001 - 7000), (7001 - 8000)	-1.233	2.241	.6925
(6001 - 7000), (greater than 9001)	-.087	1.230	>.9999
(7001 - 8000), (greater than 9001)	1.147	1.915	.5974

2 cases were omitted due to missing values.

One - Way ANOVA of Choice of Principals by the Size of the Jurisdiction

ANOVA Table for Choice

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	6	10.366	1.728	2.758	.0131
Residual	239	149.705	.626		

Model II estimate of between component variance: .035

2 cases were omitted due to missing values.

Means Table for Choice

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	47	5.548	.672	.098
(3001 - 4000)	47	5.119	.990	.144
(4001 - 5000)	32	5.312	.747	.132
(5001 - 6000)	22	5.000	.753	.161
(6001 - 7000)	5	5.583	.317	.142
(7001 - 8000)	2	6.583	0.000	0.000
(greater than 9001)	91	5.373	.776	.081

2 cases were omitted due to missing values.

Scheffe for Choice
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
(3000 or Fewer), (3001 - 4000)	.429	.585	.3329
(3000 or Fewer), (4001 - 5000)	.236	.649	.9454
(3000 or Fewer), (5001 - 6000)	.548	.732	.3079
(3000 or Fewer), (6001 - 7000)	-.035	1.333	>.9999
(3000 or Fewer), (7001 - 8000)	-1.035	2.046	.7721
(3000 or Fewer), (greater than 9001)	.175	.509	.9575
(3001 - 4000), (4001 - 5000)	-.194	.649	.9795
(3001 - 4000), (5001 - 6000)	.119	.732	.9993
(3001 - 4000), (6001 - 7000)	-.464	1.333	.9551
(3001 - 4000), (7001 - 8000)	-1.464	2.046	.3662
(3001 - 4000), (greater than 9001)	-.254	.509	.7842
(4001 - 5000), (5001 - 6000)	.313	.785	.9159
(4001 - 5000), (6001 - 7000)	-.271	1.363	.9977
(4001 - 5000), (7001 - 8000)	-1.271	2.065	.5639
(4001 - 5000), (greater than 9001)	-.060	.582	>.9999
(5001 - 6000), (6001 - 7000)	-.583	1.404	.8983
(5001 - 6000), (7001 - 8000)	-1.583	2.093	.2951
(5001 - 6000), (greater than 9001)	-.373	.673	.6860
(6001 - 7000), (7001 - 8000)	-1.000	2.371	.8913
(6001 - 7000), (greater than 9001)	.211	1.302	.9993
(7001 - 8000), (greater than 9001)	1.211	2.026	.5996

2 cases were omitted due to missing values.

One- Way ANOVA of the Freedom to Act Intentionally of the Principal by the Size of the Jurisdiction

ANOVA Table for Freedom to Act intentionality

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	6	9.179	1.530	2.468	.0246
Residual	239	148.138	.620		

Model II estimate of between component variance: .029

2 cases were omitted due to missing values.

Means Table for Freedom to Act intentionality

Effect: Size

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	47	5.617	.699	.102
(3001 - 4000)	47	5.232	.881	.129
(4001 - 5000)	32	5.396	.875	.155
(5001 - 6000)	22	5.000	1.014	.216
(6001 - 7000)	5	5.917	.132	.059
(7001 - 8000)	2	5.583	0.000	0.000
(greater than 9001)	91	5.495	.704	.074

2 cases were omitted due to missing values.

2 cases were omitted due to missing values.

Scheffe for Freedom to Act intentionality
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
(3000 or Fewer), (3001 - 4000)	.385	.581	.4702
(3000 or Fewer), (4001 - 5000)	.221	.646	.9588
(3000 or Fewer), (5001 - 6000)	.617	.728	.1671
(3000 or Fewer), (6001 - 7000)	-.300	1.326	.9953
(3000 or Fewer), (7001 - 8000)	.034	2.035	>.9999
(3000 or Fewer), (greater than 9001)	.123	.506	.9932
(3001 - 4000), (4001 - 5000)	-.164	.646	.9913
(3001 - 4000), (5001 - 6000)	.233	.728	.9708
(3001 - 4000), (6001 - 7000)	-.684	1.326	.7547
(3001 - 4000), (7001 - 8000)	-.351	2.035	.9990
(3001 - 4000), (greater than 9001)	-.262	.506	.7516
(4001 - 5000), (5001 - 6000)	.396	.781	.7696
(4001 - 5000), (6001 - 7000)	-.521	1.356	.9286
(4001 - 5000), (7001 - 8000)	-.187	2.055	>.9999
(4001 - 5000), (greater than 9001)	-.099	.579	.9990
(5001 - 6000), (6001 - 7000)	-.917	1.397	.4803
(5001 - 6000), (7001 - 8000)	-.584	2.082	.9851
(5001 - 6000), (greater than 9001)	-.495	.670	.3249
(6001 - 7000), (7001 - 8000)	.333	2.358	.9997
(6001 - 7000), (greater than 9001)	.422	1.295	.9676
(7001 - 8000), (greater than 9001)	.089	2.015	>.9999

2 cases were omitted due to missing values.

**One - Way ANOVA of the Involvement in Creating Change of
the Principal by the Size of the Jurisdiction**

ANOVA Table for Involvement in Creating Change

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Size	6	12.228	2.038	2.870	.0102
Residual	239	169.724	.710		

Model II estimate of between component variance: .042

2 cases were omitted due to missing values.

**Means Table for Involvement in Creating Change
Effect: Size**

	Count	Mean	Std. Dev.	Std. Err.
(3000 or Fewer)	47	5.579	.799	.117
(3001 - 4000)	47	5.195	1.042	.152
(4001 - 5000)	32	5.432	.780	.138
(5001 - 6000)	22	5.189	.763	.163
(6001 - 7000)	5	5.933	.370	.165
(7001 - 8000)	2	6.917	0.000	0.000
(greater than 9001)	91	5.579	.808	.085

2 cases were omitted due to missing values.

Scheffe for Involvement in Creating Change
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
(3000 or Fewer), (3001 - 4000)	.384	.622	.5596
(3000 or Fewer), (4001 - 5000)	.147	.692	.9967
(3000 or Fewer), (5001 - 6000)	.390	.779	.7816
(3000 or Fewer), (6001 - 7000)	-.354	1.419	.9920
(3000 or Fewer), (7001 - 8000)	-1.337	2.178	.5667
(3000 or Fewer), (greater than 9001)	.001	.542	>.9999
(3001 - 4000), (4001 - 5000)	-.237	.692	.9584
(3001 - 4000), (5001 - 6000)	.006	.779	>.9999
(3001 - 4000), (6001 - 7000)	-.738	1.419	.7476
(3001 - 4000), (7001 - 8000)	-1.722	2.178	.2424
(3001 - 4000), (greater than 9001)	-.384	.542	.3805
(4001 - 5000), (5001 - 6000)	.243	.836	.9820
(4001 - 5000), (6001 - 7000)	-.501	1.451	.9570
(4001 - 5000), (7001 - 8000)	-1.484	2.199	.4439
(4001 - 5000), (greater than 9001)	-.146	.620	.9940
(5001 - 6000), (6001 - 7000)	-.744	1.495	.7859
(5001 - 6000), (7001 - 8000)	-1.727	2.228	.2654
(5001 - 6000), (greater than 9001)	-.389	.717	.7059
(6001 - 7000), (7001 - 8000)	-.983	2.524	.9239
(6001 - 7000), (greater than 9001)	.355	1.386	.9908
(7001 - 8000), (greater than 9001)	1.338	2.157	.5537

2 cases were omitted due to missing values.

One - Way ANOVA of the Power of Trustees by Type of Jurisdiction

ANOVA Table for Power

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Type of Jurisdiction	1	6.217	6.217	34.812	<.0001
Residual	22	3.929	.179		

Model II estimate of between component variance: .609

3 cases were omitted due to missing values.

Means Table for Power

Effect: Type of Jurisdiction

	Count	Mean	Std. Dev.	Std. Err.
Division	17	5.080	.435	.105
District	7	6.199	.388	.147

3 cases were omitted due to missing values.

3 cases were omitted due to missing values.

Scheffe for Power

Effect: Type of Jurisdiction

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
Division, District	-1.120	.394	<.0001	S

3 cases were omitted due to missing values.

One - Way ANOVA of Choice of Trustees by Type of Jurisdiction

ANOVA Table for Choice

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Type of Jurisdiction	1	7.269	7.269	12.820	.0017
Residual	22	12.474	.567		

Model II estimate of between component variance: .676

3 cases were omitted due to missing values.

Means Table for Choice

Effect: Type of Jurisdiction

	Count	Mean	Std. Dev.	Std. Err.
Division	17	4.623	.811	.197
District	7	5.833	.569	.215

3 cases were omitted due to missing values.

Interaction Bar Plot for Choice

Effect: Type of Jurisdiction

3 cases were omitted due to missing values.

Scheffe for Choice

Effect: Type of Jurisdiction

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
Division, District	-1.211	.701	.0017

3 cases were omitted due to missing values.

One - Way ANOVA of the Freedom to Act Intentionally of Trustees by Type of Jurisdiction

ANOVA Table for Freedom to Act intentionality

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Type of Jurisdiction	1	8.268	8.268	72.209	<.0001
Residual	22	2.519	.115		

Model II estimate of between component variance: .822

3 cases were omitted due to missing values.

Means Table for Freedom to Act intentionality

Effect: Type of Jurisdiction

	Count	Mean	Std. Dev.	Std. Err.
Division	17	4.887	.262	.063
District	7	6.179	.487	.184

3 cases were omitted due to missing values.

Interaction Bar Plot for Freedom to Act intentionality
Effect: Type of Jurisdiction

3 cases were omitted due to missing values.

Scheffe for Freedom to Act intentionality

Effect: Type of Jurisdiction

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
Division, District	-1.291	.315	<.0001

3 cases were omitted due to missing values.

One - Way ANOVA of the Freedom to Act Intentionally of Trustees by Age

ANOVA Table for Freedom to Act intentionality

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Age	2	4.672	2.336	8.024	.0026
Residual	21	6.115	.291		

Model II estimate of between component variance: .305

3 cases were omitted due to missing values.

Means Table for Freedom to Act intentionality

Effect: Age

	Count	Mean	Std. Dev.	Std. Err.
31 - 40	2	4.958	.295	.208
41 - 50	13	4.917	.405	.112
51 - 60	9	5.833	.712	.237

3 cases were omitted due to missing values.

Interaction Bar Plot for Freedom to Act intentionality
Effect: Age

3 cases were omitted due to missing values.

Scheffe for Freedom to Act intentionality

Effect: Age

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
31 - 40, 41 - 50	.042	1.079	.9948	
31 - 40, 51 - 60	-.875	1.111	.1413	
41 - 50, 51 - 60	-.917	.616	.0032	S

3 cases were omitted due to missing values.

One - Way ANOVA of Awareness of Trustees by Gender

ANOVA Table for Awareness

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Gender	1	.961	.961	5.512	.0283
Residual	22	3.837	.174		

Model II estimate of between component variance: .067

3 cases were omitted due to missing values.

Means Table for Awareness

Effect: Gender

	Count	Mean	Std. Dev.	Std. Err.
Male	14	5.661	.498	.133
Female	10	6.067	.260	.082

3 cases were omitted due to missing values.

Interaction Bar Plot for Awareness

Effect: Gender

3 cases were omitted due to missing values.

Scheffe for Awareness

Effect: Gender

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
Male, Female	-.406	.359	.0283

3 cases were omitted due to missing values.

One - Way ANOVA of Choice of Trustees by Gender

ANOVA Table for Choice

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Gender	1	3.334	3.334	4.469	.0461
Residual	22	16.409	.746		

Model II estimate of between component variance: .222

3 cases were omitted due to missing values.

Means Table for Choice

Effect: Gender

	Count	Mean	Std. Dev.	Std. Err.
Male	14	4.661	.933	.249
Female	10	5.417	.753	.238

3 cases were omitted due to missing values.

Interaction Bar Plot for Choice

Effect: Gender

3 cases were omitted due to missing values.

Scheffe for Choice

Effect: Gender

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
Male, Female	-.756	.742	.0461	S

3 cases were omitted due to missing values.

One - Way ANOVA of Awareness of Principals by Gender

ANOVA Table for Awareness

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Gender	1	3.976	3.976	7.116	.0081
Residual	246	137.462	.559		

Model II estimate of between component variance: .035

Means Table for Awareness

Effect: Gender

	Count	Mean	Std. Dev.	Std. Err.
Male	181	5.503	.818	.061
Female	67	5.789	.509	.062

Interaction Bar Plot for Awareness

Effect: Gender

Scheffe for Awareness

Effect: Gender

Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value
Male, Female	-.285	.211	.0081 S

Scheffe for Mean of Power
 Effect: Size
 Significance Level: 5 %

	Mean Diff.	Crit. Diff	P-Value	
(3000 or Fewer), (3001 - 4000)	-.099	.926	.9908	
(3000 or Fewer), (4001 - 5000)	-.185	1.005	.9564	
(3000 or Fewer), (greater than 9001)	-1.213	1.113	.0295	S
(3001 - 4000), (4001 - 5000)	-.086	.875	.9929	
(3001 - 4000), (greater than 9001)	-1.113	.997	.0249	S
(4001 - 5000), (greater than 9001)	-1.028	1.071	.0632	

3 cases were omitted due to missing values.

One - WAY ANOVA of the Sub Category of Power - Choice by Position

ANOVA Table for Choice

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Position	3	8.574	2.858	4.550	.0037
Residual	495	310.923	.628		

Model II estimate of between component variance: .022

4 cases were omitted due to missing values.

Means Table for Choice

Effect: Position

	Count	Mean	Std. Dev.	Std. Err.
Superintendent	44	5.024	.809	.122
Trustee	24	4.976	.926	.189
President (SAC)	183	5.421	.751	.056
Principal	248	5.330	.806	.051

4 cases were omitted due to missing values.

Interaction Bar Plot for Choice

Effect: Position

4 cases were omitted due to missing values.

Scheffe for Choice
 Effect: Position
 Significance Level: 5 %

	Mean Di...	Crit. Diff	P-Value	
Superintendent, Trustee	.048	.564	.9963	
Superintendent, President (SAC)	-.397	.373	.0319	S
Superintendent, Principal	-.306	.364	.1367	
Trustee, President (SAC)	-.445	.483	.0840	
Trustee, Principal	-.354	.475	.2258	
President (SAC), Principal	.091	.217	.7093	

4 cases were omitted due to missing values.

APPENDIX H
DEMOGRAPHIC QUESTIONNAIRES

DEMOGRAPHIC QUESTIONNAIRE

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG SELECTED EDUCATION PARTICIPANTS IN ALBERTA

Your responses as a **SUPERINTENDENT** to the following items are requested for the development of an overall profile of the respondents participating in this descriptive study. Your specific responses will be kept anonymous in the development of this general profile.

1. (a) Name: _____
- (b) Phone Number: () _____
- (c) FAX Number: () _____

2. (a) Your Age (check only one):

_____ 21 - 30	_____ 51 - 60
_____ 31 - 40	_____ 61 - 70
_____ 41 - 50	
- (b) Your Gender: _____ Female _____ Male
- (c) Total Number of Years of Experience as a **SUPERINTENDENT** _____
- (d) Type of Jurisdiction (check only one) _____ District _____ Division

3. Number of Students in Your District or Division:

(a) _____ 3000 or fewer	_____ 6001 - 7000
(b) _____ 3001 - 4000	_____ 7001 - 8000
(c) _____ 4001 - 5000	_____ 8001 - 9000
(d) _____ 5001 - 6000	_____ Greater than 9000

PLEASE RETURN TO:

Arnold Preston
Deputy Superintendent of Schools
Brooks School District #2092
408 1st Street. W.
Brooks, AB
Canada T1R 0V8

If you have any questions, please feel free to call: (403) 362-2555.
Thank you for your cooperation and assistance.

DEMOGRAPHIC QUESTIONNAIRE

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG SELECTED EDUCATION PARTICIPANTS IN ALBERTA

Your responses as a **SCHOOL BOARD CHAIRPERSON** to the following items are requested for the development of an overall profile of the respondents participating in this descriptive study. Your specific responses will be kept anonymous in the development of this general profile.

1. (a) Name: _____
- (b) Phone Number: () _____
- (c) FAX Number: () _____
2. (a) Your Age (check only one):

_____ 21 - 30	_____ 51 - 60
_____ 31 - 40	_____ 61 - 70
_____ 41 - 50	
- (b) Your Gender: _____ Female _____ Male
- (c) Total Number of Years of Experience as a **SCHOOL BOARD CHAIRPERSON** _____
- (d) Type of Jurisdiction (check only one) _____ District _____ Division
3. Number of Students in Your District or Division:

(a) _____ 3000 or fewer	_____ 6001 - 7000
(b) _____ 3001 - 4000	_____ 7001 - 8000
(c) _____ 4001 - 5000	_____ 8001 - 9000
(d) _____ 5001 - 6000	_____ Greater than 9000

PLEASE RETURN TO:

Arnold Preston
Deputy Superintendent of Schools
Brooks School District #2092
408 1st Street. W.
Brooks, AB
Canada T1R 0V8

If you have any questions, please feel free to call: (403) 362-2555.
 Thank you for your cooperation and assistance.

DEMOGRAPHIC QUESTIONNAIRE

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG SELECTED EDUCATION PARTICIPANTS IN ALBERTA

Your responses as a **SCHOOL ADVISORY COUNCIL PRESIDENTS** to the following items are requested for the development of an overall profile of the respondents participating in this descriptive study. Your specific responses will be kept anonymous in the development of this general profile.

1. (a) Name: _____
- (b) Phone Number: () _____
- (c) FAX Number: () _____
2. (a) Your Age (check only one):

_____ 21 - 30	_____ 51 - 60
_____ 31 - 40	_____ 61 - 70
_____ 41 - 50	
- (b) Your Gender: _____ Female _____ Male
- (c) Total Number of Years of Experience as a **SCHOOL ADVISORY COUNCIL PRESIDENT** _____
- (d) School Configuration (Grade level): _____ Gr. 1-6 _____ Gr. 1-9
 _____ Gr. 7-9 _____ Gr. 1-12 _____ Gr. 7-12 _____ Gr. 10-12
- (e) Type of Jurisdiction (check only one) _____ District _____ Division
3. Number of Students in Your District or Division:

(a) _____ 3000 or fewer	_____ 6001 - 7000
(b) _____ 3001 - 4000	_____ 7001 - 8000
(c) _____ 4001 - 5000	_____ 8001 - 9000
(d) _____ 5001 - 6000	_____ Greater than 9000

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DEMOGRAPHIC QUESTIONNAIRE

A MEASURE OF PERCEIVED POWER IN INFLUENCING CHANGE AMONG SELECTED EDUCATION PARTICIPANTS IN ALBERTA

Your responses as a **PRINCIPAL** to the following items are requested for the development of an overall profile of the respondents participating in this descriptive study. Your specific responses will be kept anonymous in the development of this general profile.

1. (a) Name: _____
- (b) Phone Number: () _____
- (c) FAX Number: () _____
2. (a) Your Age (check only one):

_____ 21 - 30	_____ 51 - 60
_____ 31 - 40	_____ 61 - 70
_____ 41 - 50	
- (b) Your Gender: _____ Female _____ Male
- (c) Total Number of Years of Experience as a **PRINCIPAL** _____
- (d) School Configuration (Grade level): _____ Gr. 1-6 _____ Gr. 1-9
 _____ Gr. 7-9 _____ Gr. 1-12 _____ Gr. 7-12 _____ Gr. 10-12
- (e) Type of Jurisdiction (check only one) _____ District _____ Division
3. Number of Students in Your District or Division:

(a) _____ 3000 or fewer	_____ 6001 - 7000
(b) _____ 3001 - 4000	_____ 7001 - 8000
(c) _____ 4001 - 5000	_____ 8001 - 9000
(d) _____ 5001 - 6000	_____ Greater than 9000

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