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A STUDY TO EXPLORE THE BASES OF POWER OF SCHOOL
DISTRICT CHIEF EXECUTIVE OFFICERS IN THE PROVINCE
OF NEWFOUNDLAND AND LABRADOR

BY

WILLIS C. JACOBS

A proposal for a dissertation to be submitted
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

University of Ottawa



Willis C. Jacobs, Ottawa, Canada, 1992



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ABSTRACT

A STUDY TO EXPLORE THE BASES OF POWER OF SCHOOL DISTRICT CHIEF EXECUTIVE OFFICERS IN THE PROVINCE OF NEWFOUNDLAND AND LABRADOR

This study examines the power bases of school district chief executive officers using a modified version of a conceptual framework of power proposed by French and Raven (1959). Their bases or sources of power are *coercive*, *reward*, *legitimate*, *expert* and *referent*. These five bases are extended to include *information* power (Raven and Kruglanski, 1970) and *connection* power (Hersey, Blanchard and Natemeyer, 1979).

The primary intent of the research is an exploratory investigation of the power bases of chief executive officers of school districts. Power is treated as a dependent variable, while the independent variables include the three groups of subordinate personnel and a wide variety of demographic variables.

Data for the study are collected from 24 school districts in the Province of Newfoundland and Labrador. Forty-three assistant superintendents, 105 district program consultants, and 160 principals complete a perception-of-other power profile for the perceived power bases of their chief executive officer (superintendent), and 23 chief executive officers complete a self-perception power profile to indicate the power bases that

they use when interacting with each of three subordinate groups. All respondents also complete a demographic questionnaire.

Data are analyzed using MANOVA. Tukey's post-hoc statistical analysis is used, when necessary, for additional exploration of primary and subsidiary research questions.

Significant differences exist among the three self-perceived power profiles, and among the perception-of-other power profiles for five of the independent variables. In the self-perceived power profiles, superintendents perceive themselves to use significantly more coercive power in their working relationships with school principals. In the perception-of-other power profiles, significant differences are found when data are classified according to (i) superintendents' years of experience in their current positions, (ii) age of subordinate personnel, (iii) age of superintendents, (iv) size of school districts, and (v) career-bound and place-bound superintendents who have 10 years or less experience.

No significant differences exist for the independent variables (i) type of subordinate personnel, (ii) experience of subordinate personnel, (iii) gender of subordinate personnel, (iv) distance from central office, and (v) type of school district (Catholic or Integrated). It is also concluded that no significant differences exist among the three self/other power profiles that compare the superintendent's self-perception with the perceptions of the three subordinate groups.

For superintendents' years of experience, the more experienced superintendents receive a significantly lower rating for legitimate power. For age of superintendents, the youngest superintendents receive a significantly lower rating for the information power, the older superintendents receive a significantly lower rating for the legitimate power, and the medium age superintendents in comparison to the younger receive a significantly lower rating for expert power. When data are classified by age of subordinates, the oldest subordinates perceive superintendents to have significantly more legitimate power but significantly less referent power. For size of the school district, when categorized by enrolment, superintendents in the larger districts are perceived to use significantly less connection power and significantly more legitimate power. When district size is based on the number of schools, superintendents in the larger districts use significantly less connection power and significantly more expert power. For the perceived power bases of career-bound and place-bound superintendents with 10 years or less experience, the career-bound superintendents use significantly more coercive power.

An analysis of the descriptive statistics indicates that three distinct clusters or groupings of power bases exist for all of the independent variables. Expert and legitimate power bases always receive ratings that are higher than any of the other five power bases; the three intermediate bases are information, referent and reward power; and coercive and connection power always receive the lowest ratings.

CHAPTER I

Chapter one provides a general introduction to this study which explores the power bases of school district chief executive officers as perceived by subordinate personnel and self. It emphasizes the significance of the power concept, explores the general focus of past research, identifies some major flaws in the limited examination of chief executive officers' power bases, and presents a rationale for further research initiatives. The conceptual framework, which forms the theoretical base for the research, is also identified.

INTRODUCTION

Initial studies of organizations have explored many relevant issues that appear to be related to the major concerns surrounding effective leadership. While these research initiatives have made significant contributions towards assisting leaders in becoming more effective, there is still a realization that many variables require further investigation. The concept of power is one of these subcomponents, even though it is often considered to have its roots in the sixteenth century writings of Machiavelli. Power is frequently seen as something to avoid and to ignore because it is generally viewed from a negative perspective. Thus, the initial challenge is to overcome this fear and to fully

comprehend the potential benefits which may accrue to an organization through the proper understanding and use of power. Giammatteo and Giammatteo (1981) point out that "power, like any human attribute can be benevolent or malicious, used or abused, inspiring or stifling, but it is a force within most systems" (p.43).

The complex and technical nature of today's organizations requires managers to be skilled in the acquisition and utilization of power. Muth (1984) states that power "is ubiquitous in social relations of all kinds, a central element in organizations, and fundamental to schooling - even though what power is and what power includes are the subjects of considerable debate"(p. 25). Etzioni (1961) provides a definition of power which is widely cited and reflects its quantitative nature. He defines power as the ability to influence the behavior of other individuals, where this ability derives from organizational position (position power), personal influence (personal power), or both. His viewpoint reflects the potential dimension or possible influence of power which is in direct contrast to the view of other writers (Dahl, 1957; Lukes, 1974;). From their perspectives relative power is measured in terms of actual or direct, visible influences. They indicate that power is displayed when the power recipients are forced to do something which they otherwise would not have done. Lukes highlights the importance

of these actual influences by stating "A exercises power over B when A affects B in a manner contrary to B's interest" (p.27). Cobb (1984) labels this as an episodic view because it refers to the exercise of power, or power in action. The analytical focus is on how power is used and how it effects actual change over a period of time.

It appears that the most appropriate way to view power is from a two-dimensional framework of possible influences and actual influences. It is insufficient to focus only on observable events since an individual's perception of a leader's power would appear to include both those events in which power in action has been witnessed, and actual attempts to influence subordinates even when resistance occurs. This is the view advocated by Provan (1980) who classifies power as either potential power or enacted power.

This research recognizes the many approaches to the study of power including the Weber (1947) organizational approach, the Emerson (1962) dependency model and the Hickson, Hinings, Lee, Schneck & Pennings (1971) strategic contingency model. However, a dominant conceptual framework of interpersonal power utilized by researchers is the approach focusing on a leader's bases of power. Many labels have been used to identify particular bases, but the common elements of personal and organizational dimensions are consistently recognized.

Podsakoff and Schriesheim (1985), in a review of the research which utilizes the French and Raven (1959) typology of five social power bases, indicate that it is the conceptual framework most widely used by researchers. They conclude that on the basis of their review, "it might be argued that an adequate examination of French and Raven's conceptualization has yet to be conducted, and that much more research is badly needed in this domain" (p. 409).

The French and Raven classic analysis of power bases enables researchers to consider power as an encompassing and essential feature of organizations, rather than the narrow more negative perspective in which it is viewed as the necessary dominance of one individual over another. Their typology includes reward power, coercive power, legitimate power, expert power and referent power. Two additional power bases frequently included by researchers with the French and Raven power typology are information power (Raven and Kruglanski, 1970) and connection power (Hersey, Blanchard and Natemeyer, 1979).

While there has been extensive use of social power typologies, the vast majority do not deal directly with the field of education. Those that have focused on education generally examine the power of school principals in their relationship with teachers with whom they have daily contact (Balderson, 1975; Cross, 1986; Gunn & Holdaway, 1986; Gunn, Holdaway &

Johnson, 1988; Martin, 1975; Muth, 1984; Porter & Lemon, 1988; Stimson & Appelbaum, 1988; Treslan & Ryan, 1986).

Two recent studies of the power bases of school district superintendents (chief executive officers) conducted by Isele (1987) and by Stotts (1987) focus on selected superintendents from effective school districts in Ohio. Isele's limited sample involves 10 educational districts in which management teams, as identified by superintendents, consist of no more than 15 members. In total, 96 management personnel give their perception of the power bases utilized by superintendents. She also compares the management teams' perception of their superintendent with the superintendents' self-perception of their power bases. This is accomplished by using self-perception data collated in the study by Stotts from the same sample of Ohio superintendents. Additional exploration, in the Isele study, focuses on demographic independent variables which are confined to particular characteristics of the power recipient. When these data are analyzed on a board basis, particular categories consisting of one individual often form the basis for specific conclusions. While she attempts to determine if different subordinate groups have different perceptions of a superintendent's power bases, she does not attempt to determine if superintendents perceive themselves to be using different power bases with different groups of subordinate personnel. Furthermore, Isele assumes that it is

reasonable to compare self-perception and perception-of-other, without attempting to justify that they represent equivalent dependent variables.

Few research initiatives utilize the construct, power, as a dependent variable to explore how particular independent variables might affect the particular power base employed by management personnel. This is in contrast to the vast majority of studies which attempt to determine if the independent variable, power, affects other dependent variables, such as conflict (Muth, 1984); decision making (Patchen, 1974; Salancik & Pfeffer, 1974); conformity (Warren, 1968); organizational climate (Porter & Lemon, 1988); employee satisfaction (Slocum, 1970); superior-subordinate interaction (Tjosvold, 1985); worker performance (Weinstein & Gent, 1983); organizational effectiveness (Bachman, Bowers & Marcus, 1968; Wiley & Eskilson, 1982); teacher satisfaction, staff morale, and innovations (Balderson, 1975); job satisfaction (Burke & Wilcox, 1977; Gunn & Holdaway, 1986); indicators of school effectiveness (Cross, 1986) and leadership behavior (Lord, 1977; Lord & Alliger, 1985).

Despite the many studies of power on organizational leadership, in general, and, more specifically, on leadership in educational organizations, the general understanding of power bases utilized by chief executive officers is

incomplete. Differences appear possible between the power bases of principals and school district chief executive officers because (a) chief executive officers are employed as professional support for elected board members yet are continuously sought by subordinates from different levels of the hierarchy for support, suggestions and advice; (b) the nature of chief executive officers' contact with subordinates is dependent on the subordinate's position in the hierarchy; (c) the loose-coupling of the educational structure implies that chief executive officers have minimal supervisory power over actual implementation of decisions; (d) chief executive officers tend to have greater control over district resources which are recognized as a major source of power; and (e) from a professional perspective, chief executive officers are seen as having the ultimate power in the day-to-day operation of the educational enterprise.

These differences may have profound effects on the perceived power bases of chief executive officers since studies of management personnel in different organizational contexts do not always yield identical results (Brass, 1984; Freiberg and Nellweg, 1985; Kipnis, Schmidt & Wilkinson, 1980; Shetty, 1978). Brass concludes that the measure of the relative positions of employees within the workflow, communication, and friendship networks are strongly related to perceptions of influence, while Kipnis et al. suggest that a number of specific variables are

related to the relative measure of power, including status of the respondent and organizational size.

Research on a number of demographic and organizational characteristics produce a variety of conclusions, many of which depend on the context of the study. Kipnis et al.(1980), Ragins (1989) and Wiley & Eskilson (1982) examine the effect of gender of respondent on perceived power base ratings. While there are mixed results, there is a belief that gender can be a significant variable in the perception of power ratings. Bennett (1988) indicates that large variations in the nature and strength of overall self-perceived power relations are found when principals are grouped on the basis of five demographic variables including building size, district size, years of experience, elementary and secondary schools and gender. Abdalla (1987) identifies subordinates' level of education, years of experience and the expertise of superiors as major predictors of power bases. Gunn and Holdaway (1986) conclude that personal qualities and characteristics, and expertise as an administrator are the best predictors of overall influence. Balderson (1975), pointing to a possible connection between environmental contingencies, contact and power base perceptions, notes that out of the five principals who are responsible for two schools, the perceptions of teachers from different schools are congruent for only one pair of observations.

In examining the educational hierarchy, it becomes evident that one of the individuals entrusted with the responsibility to motivate and energize educational personnel is the chief executive officer. Decker (1979) states that chief executive officers are the professionals who are selected by school boards as educational leaders. In this capacity, they are expected to administer and advance the total educational system. This view is supported in statements by others including Cruz (1985), Cunningham (1983), Gorton (1980) and Rebore (1985). Nevertheless, limited substantive data exist which clearly demonstrate the influence mechanisms utilized by chief executive officers in their endeavors. If the Rebore (1985) view "that the superintendent of schools is the most influential administrator in a school district because the responsibilities of the position affect the entire system" (p.73) is accurate, then research should attempt to identify those influence mechanisms which guide the administrative process.

Power bases of a powerholder can be examined by obtaining self-perceptions, and by requesting subordinates to give their perceptions since power bases appear to be a function of the interrelationships and interaction between powerholder and power recipient. In the case of school district chief executive officers, groups of subordinates who may be considered include administrative assistants, other district

level personnel and school principals. The chief executive officer and his/her assistants are key members of the district administrative team responsible for formulation, communication and implementation of district policy. Other district level personnel generally have advisory positions but tend to have reasonable access to the administrative team. Principals, though somewhat more isolated than the district personnel, tend to have either direct or indirect contact with the chief executive officer.

Recent literature (Alpin & Daresh, 1984; Crowson, 1987; Cuban, 1984; Hallinger & Murphy, 1982; Hart & Ogawa, 1987; Murphy & Hallinger, 1986) emphasizes the importance of chief executive officers in the instructional leadership process within educational districts. However, chief executive officers, while they have the legal authority to mandate instructional objectives, usually entrust other personnel with the task of curriculum implementation. Wimpelberg (1987) indicates that chief executive officers, either on an individual basis or through delegation of authority, must implement a plan that will establish a clear vision for all schools and all personnel as they pursue the goals of academic excellence.

Power is being recognized as an integral part of leadership in organizations, and its significance in the leadership process is being articulated. While current research gives it extensive

treatment, resulting in many significant conclusions, further studies of power in educational organizations are required. In particular, the chief executive officers of school districts must become the focus of power studies if specific statements are to be formulated in respect to the nature of their relationships with subordinates. It is in consideration of this void in the literature, the significance of a chief executive officer's position in the educational structure, and the importance of having definitive information to guide the interactive processes of subordinates with their chief executive officers, that this exploratory study dealing with the bases of power of chief executive officers is being advocated.

A comprehensive examination of the power literature, including a more detailed and critical analysis of the studies already identified, is included in Chapter Two. A statement of purpose of the study, the research questions, four general hypotheses and definitions for significant terms are provided also. Chapter Three describes the methodology, including the context of the study, data collection and analyses procedures, limitations and delimitations, and significance of the study. Chapter Four gives a detailed analysis of data, while Chapter Five contains a summary of findings, followed by conclusions and recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

This chapter provides the theoretical background necessary for an understanding of the concept of power which is the focus of this study. It begins with an examination of the power dilemma, highlighting its positive and negative dimensions. An attempt is made to identify related terminology and to distinguish between selected interrelated concepts such as power, authority and influence. A comprehensive examination of power definitions is provided, along with a review of the many perspectives of power including those that focus almost exclusively on organizational characteristics as well as those that advocate the interpersonal or power base viewpoint. Two sections analyzing the research initiatives related to power are provided, with a separation of the educational from non-educational studies. Finally, the statement of the problem, research questions and hypotheses are provided.

Understanding the Concept of Power

The power dilemma

Bierstedt (1950) states that "in the entire lexicon of sociological concepts none is more troublesome than the

concept of power. We all know perfectly well what it is until someone asks us" (p. 730). He then points out that power is necessary to inaugurate an association, to guarantee its survival and to establish norms. Hicks and Gullett (1975) confirm this view by stating that

the importance of power in organizations can hardly be overemphasized. Power is undoubtedly one of the essential components of practically every organization. A clear understanding of an organization requires a thorough analysis of power as one of its central features.(p. 230)

When power is examined from a positive perspective it is deemed essential for an organization. If powerholders exploit those over whom they have power, its evil components become the focus of attention. It is because of this negative connotation that most leaders seldom say that they desire more power. Stimson and Appelbaum (1988) say that "to describe educational personnel as 'power hungry' or 'political' would not be considered a complement" (p. 313). Instead of admitting that more power may advance the goals of the organization, there is a tendency to focus on the challenge of directing subordinates, the need for leaders to initiate a policy formulation process, and the necessity to direct personnel to ensure greater efficiency and productivity. Taylor (1986) verifies this view when he states

Ever since Machiavelli wrote the *The Prince* and Lord Acton made his rather ridiculous comment, "power corrupts, and absolute power corrupts absolutely", people have been terrified of power and reluctant to discuss it. The result is that we have failed to recognize and use one of the most interesting and valuable of human characteristics and assets. (p. 42)

Power and its related terminology

Power and its many associated terms such as authority, influence, control, and dominance are continuously recognized in the literature as interrelated. But despite the many attempts to draw a clear and explicable distinction among the terms, much confusion still remains. In addition to the various terminology, power may be approached from an organizational perspective versus an individual perspective, or from the powerholder viewpoint versus the power recipient viewpoint. Authors talk about sources of power, types of power, bases of power, power typologies and theories of power.

Hersey and Blanchard (1982) point out that even though there is a widespread use of the term "power" in the management literature, there is still no clear and definitive understanding of the concept. Power and other related concepts

are still used interchangeably. Gunn and Holdaway (1986), in a study dealing with the power of the school principal, state that "to avoid the negative connotation often associated with the term 'power', the terms 'influence' and 'power' were used synonymously..."(p. 48). Mitchell and Spady (1983) express the view that the "discussions of authority in education have been clouded by a lack of clarity and precision in the use of terms and a fundamental confusion over the relationship between the concepts of power and authority"(p. 5). Sharma (1982), in his discussion of authority and power, indicates that

in common parlance, authority and power are synonymous and the two terms are used indistinguishably and interchangeably. However, modern management literature draws a distinction, as it is sometimes witnessed that a person low in the organisational hierarchy gains access to the ear of the chief executive officer and is able to influence decision-making. Therefore, the concept of authority needs to be understood clearly and distinctly from power.(p.71-72)

Abbott and Caracheo (1988) further substantiate this view when they state that "contemporary studies on social organizations are replete with confusing terminology related to the phenomenon of domination. This confusion exists because the terms *power, authority, control, leadership* and *influence*

[italics in original] tend to be used interchangeably" (p. 239). They use authority to refer to position or organizational power and prestige to identify the personal component. They say

the term authority refers to the capability of exercising power by virtue of the fact that an individual occupies a legally established position within a social institution.... Prestige refers to the personal element. It can be defined as the capability of exercising power by virtue of the fact that an individual possesses personal characteristics, either natural (candor, energy) or acquired (knowledge, expertise) that are valued by others. (p. 242)

Doob (1983) expresses his view on the variety of definitions for power and the confusion in the literature between power and its related concepts by referring to the "definition jungle". Rashid and Archer (1983), who draw a clear distinction between authority, power and influence, define the concepts as follows:

Authority - if A can get B to do something that B would otherwise not have done, and if B recognizes that A has the right to do so, then A may be regarded as having authority over B".

Power - if A can get B to do something that B

otherwise would not have done, then A is said to have power over B.

Influence - if A can get B to do something that B would otherwise not have done without manipulation of rewards and punishments, then A is said to have influence over B. (p.239)

Follet, in Metcalfe & Urwick (1940), attempts to indicate the subtle differences between power, control and authority. She states that "power ... is the ability to make things happen, to be a causal agent, to initiate change....Control might be defined as power exercised as means toward a specific end; authority, as vested control"(p.99). Provan (1980) defines power as "the *capacity* to influence. Power does not have to be enacted for it to exist, whereas influence does, it is the demonstrated use of power"(p. 550)[Italics in original]. Thus, while a variety of terms are often used in similar contexts, there is general agreement that subtle differences do exist.

Defining Power

Cartwright (1959), in the preface to his collection of writings about power, concludes that no single theoretical formulation appears to guide the research and no two authors use precisely the same definition. Ryan (1984) summarizes the definitional dilemma by stating that "power is not a concept easy to grasp

in all its aspects and levels at the same time, and when it comes to the question, 'what do you mean by power?'. the boundaries of the concept are not too clear" (p. 22).

Reyes and McCarthy (1986) also confirm this view when they state that "power as a concept has different meanings to different people" (p.6). Bell (1965) expresses the view that much of the literature about power is derived from the work of Aristotle and Machiavelli. Writers, however, consistently refer to the work of Weber who highlights the role of legitimation in the exercise of power. This legitimation of social control also introduces the concept of authority which is superficially distinguished from the broader concept of power. Rashid and Archer (1983) state that Weber's power is legitimated into authority as a result of "(a) long standing traditions, (b) power based on rules and regulations becoming rational-legal authority, (c) personal qualities providing charismatic authority" (p. 239).

Weber (1947) defines power as "the probability that one actor in a social relationship will be in a position to carry out his will despite resistance, regardless of the basis on which this probability rests" (p.252). He indicates that his concept of power embraces all conceivable qualities of a person and all conceivable combinations of circumstances which may put actors in a position to impose their will in specific

situations. Muth (1984) points out that this view of power resulting from two or more actors involves relational and interactive components. Its latent or potential aspects highlight the view that individuals can have power but not use it, even though the mere existence of the power may be sufficient to affect another behavior. Muth, however, has problems accepting the asymmetric assumption and the necessary requirement of force for the transaction of power. He suggests that if "a coercive element remains essential to a definition of power, then arguments about situational asymmetry are moot"(p. 27). Abbott and Caracheo (1988) indicate that Weber initially considered power to be a general all-encompassing concept. This view appears appropriate since Weber (1947) progresses from a discussion of power (macht) to the more specific term of imperative control (herrschaft) which is seen more as a derivative of established authority. Imperative control is defined as the probability that a command with a given content will be obeyed by a given group of persons. Benedix (1966), who translates herrschaft as domination, says that Weber did not use authority as a separate technical term, but only as a synonym for domination. In any event, herrschaft implies an element of voluntary submission or obedience, which derives from a belief in the legitimacy of the command. Thus, power is seen from a more global perspective, with authority being seen as a specific means of imposing one's will in a social relationship.

Dahl (1957) attempts to provide a precise definition of power. He states that "power is a relation among social actors in which social actor, X, can get another social actor, Y, to do something that Y would not otherwise have done" (p. 40). This definition also implies the relational dimension but indicates that actions of the power recipient are a direct result of the power application. Doob (1983) takes a more encompassing view when he states that power is

the actual or potential ability of one or more participants (or forces), according to the true or false conviction of an observer or a participant, to have affected or to affect the specified, significant actions of one or more other participants (or forces)...(p.8).

In a similar vein, Provan (1980) identifies potential power as "the capacity to influence" and enacted power as "demonstrated influence over outcomes that have already occurred"(p.550).

Emerson (1962) and Mechanic (1962) both view power as being closely related to dependence. Emerson advocates the view that power results from one person's dependency relationship with another. Mechanic argues that a person becomes subject to another person's power when that person is dependent on another's control of access to information, person and instrumentalities. This implies that power is not confined to

superordinates in the hierarchical structure since lower participants in an organization can have power over their superiors through various control mechanisms.

Hickson et al. (1971) propose a strategic contingencies model whereby the power of a subunit is related to its ability to cope with uncertainty, substitutability and centrality through the control of strategic contingencies upon which other activities are dependent. This perspective appears to be related to the dependency model because they point out that the uncertainty coping capability can be considered a critical resource for an organization. Salancik and Pfeffer (1974), in their study of 29 departments of the University of Illinois at Urbana-Champaign, indicate that power is related to how subunits acquire critical resources for the organization. Thus, they also take a dependency view because the organization depends on individual members of a subunit to enhance its resources.

Salancik and Pfeffer (1977) propose a definition of power which focuses on control of the power recipient. Their definition, that "power is simply the ability to get things done the way one wants them to be done" (p.4), implies that there are at least two persons in a social transaction. However, it tends to reflect more of a unidirectional approach

whereby power is limited to those instances in which the powerholder has sufficient power to get desired results. Furthermore, it can be argued that *ability* to obtain results does not necessarily imply *power in action*. It also encompasses situations where sufficient ability exists to achieve the desired outcome. Martin (1975) substantiates this point of view when he states that "while some writers have defined power to include unintended effects on others, most have either implicitly or explicitly restricted the term to the intentional control of others"(p.2).

Randolph (1985) takes a more cautious view when he states that power "is simply the capacity to influence other people's behavior. Organ and Bateman (1986) define power "as the ability to influence" where influence is "the process by which one person affects the behavior of another"(p.528). It should be noted that these definitions do not imply the acquisition of the specific intended result desired by the powerholder. It permits resistance on the part of the power recipient when there is a desire to modify the actions of the powerholder. French (1956) takes a similar view by stating that "the power of A over B (with respect to a given opinion) is equal to the maximum force which A can induce on B minus the maximum resisting force which B can mobilize in the opposite direction"(p. 183).

Resource dependency has been a key issue from the initial studies of organizational power. Parsons (1956) focuses on power as the ability to mobilize resources. Kanter (1977) takes a similar view by defining power "as the ability to get things done, to mobilize resources, to get and to use whatever it is that a person needs for the goals he or she is attempting to meet" (p. 166). Manz and Gioia (1983) state that "if resources are considered from a generic view, a common thread which runs through the usual conceptualization of power is the existence of some dependence on the powerholder because of a unique control over needed resources" (p.462). It should be noted that resources are viewed in a broad perspective to include information, people, funds, expertise and other essentials for the functioning of the organization. Thus, resource control gives rise to power which, in turn, leads to personal control.

Another major issue receiving attention in the power literature and related to the understanding of power is the relationship between powerholders and power recipients. Ryan (1984) states that the literature can be seen as expressing the need to see power in essentially two ways - "as something one can identify as belonging to individuals or groups, so that it makes sense to say that A has power, and as an activity between people so that it makes sense to say that the more dependent B is on A, the more power A has over B" (p.26). Bannester (1969) links the

perception of power to the perceived importance of the powerholder's resources. Mitchell and Spady (1983) indicate that "authority arises in the context of direct experiences between superordinates who are in authority and subordinates who voluntarily and spontaneously modify their behavior in order to move toward and participate with the superordinate in those intrinsically meaningful direct experiences" (p.29). Kakabadse and Parker (1984). in an attempt to provide a general perspective. state that "power is essentially the effect that one person has on a second compared with that which the second has on the first" (p. 5).

While there are many definitions of power that clearly articulate relationships between individuals (Dahl, 1957; Doob, 1983; Randolph, 1985), the vast majority also emphasize the significance of the organizational component (Hickson et al., 1971; Parsons, 1956; Weber, 1947). Etzioni (1961) is quite emphatic in his belief that there are dual dimensions to power. He defines power as the ability to influence the behavior of other individuals, where this ability derives from organizational position (position power), personal influence (personal power) or both. The organizational context appears to unify the individual and organizational forces that enable the powerholder to influence the power recipient. While the two may be separate from a theoretical perspective, in an operative state within the organization they are totally

intertwined. Thus, in order to further explore the concept of power and to clearly illustrate the context in which power relations develop, there is a need to examine the many organizational perspectives of power.

Perspectives of Power

Organizational Perspectives

During the period of extensive writings dealing with power, the many perspectives have been described by such terminology as theories of power and typologies of power. Thompson (1974) states that "power is the essence of organizations, from Weber's analysis of its legitimation, which underlies the structure of an organization, to the often unnoticed control inherent in social interaction within an organization"(p. 11). Weber identifies two sources of power - "power derived from a *constellation of interest* that develops on a formally free market, and power derived from *established authority* that allocates the right to command and the duty to obey"(Bendix, 1966, p.290) [Italics in original].

In a comprehensive analysis of the authority concept, Weber (1947) proposes three primary types. Rational-legal authority implies that obedience occurs because of the legally established impersonal order. It extends to individuals only through the

legality of their commands and within the scope of the authority of the office. Traditional authority is enacted when obedience is owed to the person who occupies the traditionally sanctioned position of authority and who is bound by its tradition. Charismatic authority exists when charismatically qualified leaders are obeyed by virtue of personal trust in them and in their exemplary qualities provided it falls within the scope of the individual's belief in the leader's charisma. Schein (1980), in his analysis of Weber's writings on authority, identifies a fourth type called "pure rational authority". He states that "the ultimately rational basis on which to obey or follow someone is if the person possesses some specific information, competence or expertise in relation to some problem we are experiencing" (p.26).

Blau and Scott (1962) use the concept of power to classify organizations. They postulate that organizations can be classified by identifying the influencers for whose benefits the organization is created. This external analysis identifies (a) business concerns where power rests with the owner; (b) service organizations where clients have the power to control; (c) mutual benefit association where members determine the powerholders; and (d) commonweal organizations where power rests with the public at large.

Etzioni (1961) focuses on the internal characteristics of

organizations and identifies three types of compliance as a base for comparison. He indicates that for organizations to realize their goals, one of the most important means is the positive orientation of participants to the organizational power structure. Organizations are classified according to the means of control utilized by management to elicit desired behavior from subordinates and the involvement or identification that participants develop with their organizations. He states that

Coercive organizations are organizations in which coercion is the major means of control over lower participants and high alienation characterizes the orientation of most lower participants to the organization....

Utilitarian organizations are organizations in which remuneration is the major means of control over lower participants and calculative involvement (i.e., mild alienation to mild commitment) characterizes the orientation of the large majority of lower participants....

Normative organizations are organizations in which normative power is the major source of control over lower participants, whose orientation to the organization is characterized by high commitment (pp. 27-40).

Rhenman (1973) uses a typology based on actual behavior. He

links the external environment of Blau and Scott (1962) and the internal environments of Etzioni (1961) in a two by two matrix. Those organizations with no external and no internal focus are labelled marginal organizations whereas those that have no external focus but do have an internal focus are called corporations. Organizations that do have an external focus but no internal focus are identified as appendix organizations and those that have both an internal and external focus are labelled institutions. The external focus or strategic goals refer to the direction in which the internal influencers wish to take the organization, while external or institutional goals, sometimes called the mission of the organization, describe whether or not the external influencers wish to impose a mission on the organization. Thus, the power relationships between stakeholders and management are instrumental in determining the focus of the organization.

Relationships between organizational classifications and power, authority, and influence are examined by other writers. Parsons (1967) talks about economic, political, integrative and pattern-maintenance organizations which essentially differ in their power structure and in the mechanism utilized for enhancing or gaining power. Organizations are also classified according to the number of actors and goals as it relates to the balancing of power (Barnard, 1938; Simon, 1964). In the

one-actor/one-goal organization, which is usually an owner-manager enterprise, power resides with that one individual. In a multiple-goal/multiple-actor organization, a coalition of individuals bargain among themselves to determine the organizational goals. This replaces the one individual at the centre of power with multiple authorities. Barnard's Equilibrium Theory deals with the attempted balancing of inducements and contributions, in which the assumption of a single centre of power is subjected to the demands of others. This one-actor/multiple-goal approach indicates that stakeholders can influence the decisions of a single actor or powerholder. Mintzberg (1983), who examines the power struggles in and around organizations, summarizes the many perspectives on actors and goals espoused in the literature when he states that

Organizations have been changed from a system of one actor to a system of many, from a single goal to one having so many that it has none, from a maximizing device to a satisficing device, from a given instrument with no fixed ends and no conflict to an arbitrary political arena with no ends and consumed by conflict.(p.20)

In regard to the various approaches to the study of power and its related concepts, Ryan (1984) indicates that researchers'

views of power can be basically divided into three camps: (a) those who deal with the subject primarily in the context of society and state; (b) those who are mainly interested in power in the organizational setting; and (c) those who are mainly interested in power at the level of the individual. Within these divisions she recognizes that there is overlap, especially from the organizational perspective.

In addition to those divisions outlined by Ryan (1984), other typologies include a proposal by Cavanaugh (1984) who examines present and past research on the concept of power and collapses the variety of conceptual frameworks into five categories. These include (a) power as a characteristic of the individual; (b) power as an interpersonal construct; (c) power as a commodity; (d) power as a casual construct; and (5) power as a philosophical construct. She maintains that these perspectives allow power to be defined more appropriately within the context in which it is being used.

The dominant view in the literature appears to portray power as being derived from two primary sources - the position, and the person, with these sources complementing each other as individuals endeavor to direct and influence the focus of their organization. Certo and Appelbaum (1986) state that

the total power a manager possesses is made up of different kinds of power: position power and

personal power. Position power is derived from the organizational position a manager holds. In general, moves from lower level management to upper level management accrue more position power for a manager....Personal power is a power derived from a manager's human relationships with others.... Managers can increase their total power by increasing their position power or their personal power. (p.271-72)

Hunsaker and Cook (1986) take a similar view when they indicate that the positional power originates from the position a person holds in the organizational hierarchy, rather than from personal skills or attributes. Personal power derives from an individual's personality and expertise.

Manz and Gioia (1983) address the interrelationship between power and control of an organization. They believe that resource control will lead to enhancement of power resulting in personal control. They conclude that "the exercise of personal control fosters resource control, and that any relocation of either personal or resource control will affect the distribution of power in the organization"(p. 473).

Tannenbaum and Georgopoulos (1968) suggest that the power of power-holders is related to their position in the organizational structure. They maintain that individuals at different levels in

an organizational hierarchy exercise different degrees of control. Those in the higher echelons exercise more control within an organization than those within the lower echelons. Zander, Cohen and Stotland (1959) express the view that a person's power relations with members of another group will have important consequences for the perception and behavior he/she directs toward them, primarily because the amount of power he/she possesses helps to determine the degree of security he/she feels when interacting with them. They further indicate that a person's perception of power stems from (1) status differentials, (2) the nature and value of the function, and (3) the responsibility they have to others or that others have to them.

Thibaut and Kelley (1959) propose a cost-reward or exchange theory of power. Participants in a power interaction provide outcomes for one another. As a result of the interactive process, powerholders may have to modify their behavior in order to achieve the intended outcome. The final result of the entire act thus becomes a product of the interaction between the powerholder's behavior choices and the behavior choices of the recipient. In a similar vein, the dependency model of power (Emerson, 1962) postulates that power is related to the interdependence of the powerholders and the power recipients. He suggests that power resides implicitly in other's dependency, which indicates that parties in a power

relationship are tied to each other by mutual dependency. Intensity of demand and the number of supply alternatives are identified as two factors influencing this dependency. Das (1988) points out that "a person or group cannot have power in isolation, power must be in relationship to some other person" (p.534).

The conceptual framework of power outlined by Mechanic (1962) proposes that power is not confined solely to managers and supervisors, or the higher level echelons of an organization. He suggests that lower-participants in an organization, through their access and control over information, have power over their supervisors. This power can also increase depending on the lower participants' length of service in the organization, their level of expertise and their willingness to exert effort in areas where higher-ranking participants are often reluctant to participate. Reyes and McCarthy (1986), in a study involving 50 secretaries in a major public research institution, conclude that their data partially support the Mechanic model. Increased length of service correlates positively with increased control over access to persons, information and instrumentalities, and a positive relationship exists between expert knowledge and perceived power. The hypothesis which predicts that a person difficult to replace would have greater power than a person easily replaced is rejected. Ansari and Kapoor (1987), after examining upward

influence, report that their findings support the hypothesis linking "the effects of two contextual variables - immediate superiors' leadership styles and the goals of influence attempts - on subordinates' use of power strategies" (p.39). They also suggest that the personal characteristics of the actor may be critical to the individual's choice of power strategies.

Hambrick (1981) outlines a modified version of the Hickson et al.(1971) Strategic Contingency Model. He proposes a Critical Contingency Model in which the contingency need not have its origin in the organization's strategy *per se*. He states "that the environment of an organization and its strategy for navigating within that environment are distinct yet intertwined factors that account for the 'critical contingencies' that an organization faces and, in turn, for the power patterns within the organization" (p.253). This model of power indicates that the formal authority and the personal characteristics of the leader, in combination with those coping behaviors molded through the sources of critical contingencies, determine the power level of the leader. He concludes that the data support the view "that environment and strategy can be conceptually and empirically distinguished and that they both can affect internal processes"(p.269). Hinings, Hickson, Pennings, and Schneck (1974) state "that the concept of coping is crucial to understanding any relationship between uncertainty and power,

for it is not the uncertainty, but what is done about it that confers power"(p. 22).

Components of power have been utilized as important elements to distinguish between types of organizations. Concomitantly the interactive process between individual characteristics and organizational elements can affect the amount of power available to the powerholder. It is essentially a matter of emphasis. In those situation in which power receives special emphasis from an individual perspective, with organizational dimensions playing a significant but secondary role, the issue of power bases is very prominent. Individuals use their personal power and the power available to them through their position in the organization to influence others. French and Raven (1959), using an individual or interpersonal conceptual framework, discuss power bases or sources of power, and point out that the relative power of a powerholder is related to the manner in which these sources of power are utilized. Thus, it is within this interpersonal context, complemented by the existence of the organizational structure, that power bases are examined.

Power bases

Abbott and Caracheo (1988), after analyzing the views of numerous authors including Weber (1961) and French and Raven

(1959), conclude that there are essentially two bases of power - authority derived from the organization, and prestige which is a product of the individual. These two bases create the potential power which is manifested in the organizational structure through "a coercive-compelling component or a persuasive-rewarding component" (p. 242). They utilize Weber's power perspective to identify power bases, and propose that the French and Raven power bases are really a classification of power acts.

French and Raven (1959) state that "the phenomena of power and influence involve a dyadic relation between two agents which may be viewed from two points of view: (a) What determines the behavior of the agent who exerts power? (b) What determines the reactions of the recipients of this behavior"(p.150)? Using the second point of view, they formulate their conceptual framework in terms of the person upon whom the power is exerted. Power is viewed in terms of influence on the recipient and influence in terms of psychological change, where change "includes changes in behavior, opinions, attitudes, goals, needs, values and all other aspects of the person's psychological field"(pp. 150-151). The conceptual framework focuses primarily on those changes in a system which are produced directly by social influences. It is less concerned with any secondary change which may be indirectly effected in other systems, or with changes that may result

from non-social influences. They emphasize that these social influences usually take place through intentional acts, but the passive presence of the agent, without evidence of speech or overt movement, can also result in influence. The influence of an actor can be in the direction intended (positive influence) or in the opposite direction (negative influence), depending on the relative resistance of the power recipient. Their definition in a mathematical context is

$$\text{power of } O/P_{(a)} = (f_{a,x} - f_{a,x})_{\text{max}}$$

It should be noted that power is specified with respect to a system *a* because the power of actor *O* over the power recipient *P* (*O/P*) may vary greatly from one system to another. It is also pointed out that the power of *O/P* and of *P/O* are conceptually independent, and a high power in one direction does not mean a low power in the opposite direction.

French and Raven (1959) state that the "basis of power" refers to "a relationship between *O* and *P* which is the source of power, and rarely is it limited to only one source. They distinguish among five bases of social power—reward, coercive, legitimate, referent, and expert. *Reward power* is based on the ability of the powerholder to reward the power recipient. It depends on the powerholder's ability to administer positive valences and to remove or decrease negative valences. *Coercive power* is the ability to force compliance through negative sanctions. The strength of the

coercive power depends on the magnitude of the negative valences and the perceived probability that the power recipient can avoid the punishment. *Legitimate* power stems from internalized values in the power recipient which dictate that the powerholder has a legitimate right to influence the power recipient, and the power recipient has an obligation to accept this influence. Legitimacy involves some code or standard accepted by the power recipient which enables the powerholder to exert influence. These codes or standards may include cultural values, acceptance of a social structure or designation by a legitimizing agent. *Referent* power is based on the identification or feeling of oneness of the power recipient with the powerholder. It is postulated that the greater the attraction, the greater the identification and, consequently, the greater the referent power. *Expert* power relates to the perceived knowledge base of the powerholder. The power recipients can evaluate the powerholder's expertise in relation to their own knowledge as well as against an absolute standard. However, the range of expert power is considered restricted to cognitive systems, and the powerholder's knowledge or ability in very specific areas. Although some halo effect is expected, power is generally confined to the specific area of expertise.

In reflection, French and Raven focus on *what determines the reactions of the power recipients to the powerholders'*

behavior. This raises some very fundamental questions. Do recipients in different organizational positions have distinct perspectives on their leader's bases of power? Are there factors in the subordinates "psychological field" or the "system" in which they operate which could alter their perception of power bases? It is also interesting to reflect on their conceptualization that the power of O/P and of P/O are conceptually independent. Does this imply that the actors' perceptions of the power bases used to direct power recipients are conceptually independent of the power recipients' perceptions of these power bases? Certainly, if the psychological field and system of operation are crucial, then actors and power recipients may view power bases in relation to different criteria.

Abbott and Caracheo (1988) express the view that "reward and coercive power are not bases of power but an expression of power, or the way power is exercised. As for legitimate power, they say it is "an essential element of acceptable domination in social interaction. Conceptually, legitimacy cannot be separated from legal-rational domination, nor from traditional domination, nor from charismatic domination" (p.242). They view referent and expert power as a component of the prestige base of power. This appears to indicate that there are major differences in identifying power bases, but after examining the view of French and Raven (1959) and subsequent writers

including Hersey and Blanchard (1982), it is obvious that the differences are very superficial. These authors agree on the ~~POWER~~-base terminology and they also recognize that power evolves from a combination of personal characteristics and the position of the individual within the organizational structure.

The initial five bases of power proposed by French and Raven (1959) are extended by Raven and Kruglanski (1970) to include information power. This power base depends on a leader's accessibility to important information which is controlled by them in respect to dissemination within the organization. Hersey and Blanchard (1982) add a seventh base which they label connection power. This base of power refers to power resulting from the leader's connections with influential individuals within or outside the organization. Its strength essentially resides within the perceptions of the power recipient.

Raven and Rubin (1983) point out that the initial five bases are socially dependent, whereas information power is socially independent whereby the "one being influenced does not continue to relate his changed behavior, belief, or attitude to the influence agent" (p.442). They also indicate that because of the particular situations in which power may be employed, "bases of power may result in varying degrees of

positive influence (influence in the direction desired by the influencing agent) or negative influence (in a different direction than desired)" (p.442).

While the dominant view espoused in the literature identifies personal and organizational sources of power, Randolph (1985) proposes three sources of power, and relates these particular power bases to their sources. He classifies referent and expert power as personal sources, and reward, coercive and legitimate power as position sources. The information and connection power bases, and an additional base of resource power are classified as organizational sources of power. He states that resource power "is best defined as the person who controls the gold makes the rules" (p. 307). This resource power also relates to Emerson's (1962) dependency model which emphasizes that power relationships are created by the supply and demand of resources.

Cross (1986), in his examination of the relationship between bases of power and school effectiveness, uses the six bases of power identified by French and Raven (1959) and Raven and Kruglanski (1970). He also proposes a new base which is labelled visionary power. It is defined as "the ability of the principal to gain a teacher's compliance based on the teacher's belief that the principal has a definite vision of the purposes(goals) of the school and clearly articulates

those purposes (goals)"(p. 40). Cross justifies the inclusion of visionary power "based on its frequent mention in recent effectiveness literature"(p.42). He then verifies, as one might expect, that there is a positive correlation between visionary power and school effectiveness. There is no attempt to determine if visionary power is distinct from the other bases of power. Furthermore, it is conceivable that this visionary power may essentially be leaders using their expertise to identify and define goals for their organization. Through the use of available power sources, the mission which is being articulated may be accomplished. Thus, visionary power may only be a cumulative effect from the appropriate utilization of the traditional power bases.

Organ and Bateman (1986) discuss five general bases of power in organizations. Although their terminology is somewhat different, there are obvious similarities with the bases of power espoused by French and Raven. Organ and Bateman talk about legitimacy derived from authority, rules and laws; control over resources, money and information; expertise-critically and low substitutability; social relationship-contacts, friendship, power in numbers; and personal characteristics - personal resources such as charisma, and attractiveness. In elaborating on control over resources, they state "power accrues to those who have control over organizational resources, particularly those that are scarce

and important"(p. 534). This resource emphasis can be encompassed in the reward power of French and Raven because by offering rewards, the powerholders control resources which they may distribute as rewards to acquire power. Others may see the withholding of rewards as coercive power, although the general emphasis in coercive power is how types of force can bring about compliance.

Abdalla (1987), in his examination of supervisory power, uses factor analysis to create three influence processes from ten items examining the five bases of power identified by French and Raven (1959). He indicates that reward and coercive bases form a separate group referred to as the "reward-punishment influence process index". Measures of the position power and the law of situation, which implies access to influence out of a sense of commitment to a larger purpose by the organization, form the "position-organization influence process index". Finally, expert power loads on the same factor as the referent base of power, forming a third group called the "expert-referent influence process index" (p. 731-732). This, once again, reaffirms the belief that a power base approach to interpersonal power can provide an acceptable criterion for an examination of power. The classification used by Abdalla provides a more general classification scheme.

Galansky, Rosen and Thomas (1973) attempt to empirically

investigate the distinctness of the French and Raven five bases of social power by utilizing orthogonal analysis with varimax rotation. Their sample, consisting of 110 public assistance workers, responds to 80 questionnaire items. They state "there was evidence for concluding that legitimacy, expertness, positive sanctions and negative sanctions do in fact constitute independent empirical unities; and that, moreover, these variables were empirically discriminable by their inducer group, supervisors or fellow workers"(p.728). They indicate that referent power does not emerge as an independent factor, but qualify their findings by saying "this may be due in part to the manner in which it was measured. Relatively few questions were asked concerning attraction" (p.729).

Schein (1977) expresses the view that there is a need for a conceptual scheme linking the bases of individual power, intent of the powerholder and the means utilized by the powerholder. For bases of power, she states that "the most notable research has been the work by French and Raven (1959)" (p.65). She considers intent, which generally falls into two categories, as focusing on why a powerholder chooses a particular power base to modify subordinate behavior. They either bring personal goals congruent with organizational goals or they bring personal goals incongruent with organizational goals. *Means* refer to methods or tactics through which the actual influence

process may be accomplished, and these means may be of an overt or covert nature.

Kotter (1977) uses different terminology to describe power bases. He outlines four different types of power which result from the dependency relationships between successful managers and subordinates. Power results generate from successful managers: (1) creating a sense of obligation in their relationship with others; (2) building reputations as experts in certain matters; (3) fostering others' unconscious identification with them or the ideas for which they stand; and (4) gaining power by feeding others' beliefs that they are dependent on the managers for help or for not being hurt.

Mintzberg (1983) emphasizes that "having a basis of power is not enough. The individual must act in order to become an influencer, he or she must expend energy, use the basis for power" (p.366). His bases of power, although utilizing different terminology, are compatible with the French and Raven (1959) power bases. He indicates that the "three prime bases of power are control of (1) a resource, (2) a technical skill, or (3) a body of knowledge" (p.361). His other two bases of power stem from the legal prerogatives to impose choices and from having access to those who can rely on any one of the the other four power bases. Mintzberg, however, appears to relate power more to the political manipulation of

individuals and the organization to achieve a desired response. His reference to "those who stay and fight" (p.365), clearly indicates that there may be reluctance by some subordinates to accept decisions of superiors. These subordinates may be willing to employ political strategies to demand changes in decisions invoked by powerholders. He also indicates that individuals possessing a power base must expend energy in a politically skillful way if their efforts are to be successful. Mintzberg, in expanding on his resource power base which is recognized as the essence of power for an individual, says that resource control provides power if the resource (1) is essential for the functioning of the organization, (2) is concentrated in short supply or in the hands of a few or a small number, and (3) is non-substitutable or irreplaceable (p.365).

Other power typologies include the strategies proposed by Kipnis et al. (1980), Isherwood (1973), Taylor (1986) and Treslan and Ryan (1986). The seven bases of power outlined by Kipnis et al. are (a) assertiveness, (b) ingratiation, (c) rationality, (d) sanctions, (e) exchange, (f) upward appeal, and (g) coalitions. These appear to incorporate the French and Raven (1959) bases, although the bidirectional influence process appears to receive greater emphasis. They state "texts mainly focus on the way in which higher levels in the organization influence lower levels.... We would suggest that

everyone is influencing everyone else in the organization, regardless of job title"(p.451). Taylor proposes a concentric circle model of power in which all power comes from eight sources. These are (a) positional power, (b) expertise power, (c) charismatic power, (d) influential power, (e) implied coercive power, (f) actual coercive power, (g) power of applied pressure, and (h) the power of raw force. He believes that effective managers operate within the inner circles of the first four power bases, in which the difference between the radii of each concentric circle reflects the growth potential of each power base. He states "the most common failure happens when there is a sudden expansion of the centre circle of positional power that cannot be absorbed by the expertise power surrounding it"(p.47).

Isherwood (1973), who combines the influence bases espoused by Weber (1947) and by Peabody (1962) with the social power bases of French and Raven (1959), proposes six types of authority. These are (a) traditional authority, (b) legal authority, (c) charismatic authority, (d) authority of expertise, (e) normative authority, and (f) human relations skills. These bases are clearly an amalgam of the organizational perspective and the more individually oriented power base viewpoint.

Treslan and Ryan (1986) attempt to determine whether the six bases of authority, as defined by Isherwood (1973), are unique

entities by using factor analysis on a modified version of the Isherwood instrument. They formulate four bases of power which include (a) administrative skills base of influence (b) deferent authority base, (c) legal-positional influence base, and (d) charismatic authority. They state that "the most significant feature of this present study is the linking of human relations skills and technical skills as a single dimension" (p.6). The legal-positional influence reflects the Weber organizational perspective, while the other two appear more closely associated with the French and Raven power base perspective.

This review clearly indicates that there are many labels for the various bases of social power utilized in organizations. Within that classification, there are many common elements, with a recognition that the fundamental element of power emanates from the position of the powerholder within the organization. This legitimate power enables individuals within various positions to utilize organizational resources, and to a degree personal resources, to influence subordinates. Coercion power and reward power, as separate or diametrically opposite options, are available depending on the discretion and preference of the organizational leader. While one may opt for one power base in a particular situation, another leader may select an entirely different base. As for the personal dimensions of expert and referent power, individual qualities

and previous organizational affiliation may determine the nature of interaction between powerholder and power recipient. Connection power and information power appear to have a significant positional component, yet they are largely determined by the leaders' mode of operation. It is the organization which gives strength to the connection power base because individuals, through their organizational leaders, desire to take advantage of hierarchical structures. As for information power, the initial access to information is created through the position in the hierarchical structure, but how or if this information is used as a power base is dependent on the strategies of powerholders. Thus, it appears that the French and Raven (1959) original typology, combined with connection and information power, can provide a sound basis for an interpersonal study of power at the district level of educational organizations.

Research related to power has utilized a variety of conceptual frameworks and has focused on a range of organizational environments. While there has been a general emphasis in the business sector, those concentrating in the educational sphere have tended to focus at the school level. Thus, to provide an overview of findings which may relate to this research on power bases at the school district level, an examination of both the non-educational and educational sector research initiatives is provided.

Power Studies in Non-Educational Organizations

Power pervades all organizations and receives considerable attention in research. Hunsaker (1988) states that "power has both a negative and positive connotation. When power is perceived only in its negative aspects, the pursuit of power can have little or no merit. If power is perceived as the ability to influence positive changes in oneself and others, however, the study of ways to increase power gains new value"(p.3). Barlotome and Laurent (1986) express the view that "when managers fail to understand how deeply the unequal distribution of power can hurt interpersonal relations and productivity, serious problems can arise for the organizations. Brass (1984) reports that the measures of the relative positions of employees within workflow, communication, and friendship networks are strongly related to perceptions of influence. Shetty (1978) states "first, the successful manager is one who is aware of the existence of multiple sources of power in work situations. Second, the effectiveness of power types depends on the nature of managerial, subordinates and organizational variables. Managers need to take these variables into account when exercising power"(p.186). He points out that managerial variables can include traits related to personality, self confidence, training and experience. Thus, organizational characteristics, as well as personal characteristics of the individuals within the organization, appear to determine how

power is distributed and the extent to which power is used to direct the activities of others.

Hunsaker (1988), in her assessment of the gender role in power, indicates that "women who are more influential in organizations tend to build their power bases from the more personal sources of expertise, information and charisma" (p.160). Ragins (1989), in her evaluations of male and female managers, states that "contrary to predictions based on the gender congruency theory of power, male and female managers received equivalent evaluations when perceived as using equivalent types and amounts of power"(p.71). Johnson (1976), in proposing her gender theory of stereotyping and power use, maintains that "women have less access, in reality and in expectations, to concrete resources and competence, leaving them with indirect, personal, and helpless modes of influence"(p.99). She believes that her data, collected from 60 students in a psychology class, support the hypothesis that people expect males and females to use different bases of power.

Wiley & Eskilson (1982), focusing on the gender issue, investigate the interaction of gender and power bases on perceptions of managerial effectiveness. They conclude that there is no significant main effect of power types, although there is an interaction effect of gender-of-influencer and type-of-power. Males are evaluated more positively when they

employ expert as opposed to reward power, while reward power resulted in a more positive evaluations for females. Furthermore, the gender of the target has a significant main effect in those cases in which actors influencing male superiors are rated more positively than those actors influencing female superiors. Kipnis et al. (1980), however, say that their findings do not support the view that the gender of the respondent and that of the respondent's superior are related to measures of power. Thus, one can conclude that while the gender issue has been examined as a significant variable in power relations, there are conflicting findings.

Burke and Wilcox (1971), in a study involving female telephone operators, indicate that expert power is the most common power base followed by legitimate, coercive, referent, and reward power. Referent and expert power bases are associated with the greatest satisfaction, while reward and coercive are correlated with least satisfaction. Telephone operators, who report the expert base of power as the most predominant, are found to be significantly younger and to have significantly fewer years of service. The referent power and reward power groups show intermediate age and seniority levels. Stahelski and Frost (1987), surveying 19 leaders in large civil service organizations and 123 subordinates, find expert and referent power to be positively related to subordinate job performance, while the correlation with coercive and legitimate power is

negative. Reward power shows no significant correlation with any job outcome. Mani (1988), after completing eight indepth interviews and using questionnaire data from 39 employees in an advertising agency in Southern California, concludes that referent power and expert power are the predominant power bases. Burke and Wilcox, Stahelski and Frost, and Mani recognize that expert power is the predominant base of power utilized by the powerholders in their samples. While Stahelski and Frost, and Mani place referent power as the second preference, Burke and Wilcox place legitimate and coercive as more predominant than referent. This apparent discrepancy is probably due to difference in individual preference as well as differences in organizational environments.

Bachman, Bowers and Marcus (1968) provide a comparison of supervisory power from five organizational environments by using data provided by salesmen in branch offices, faculty members in a liberal arts college, agents in life insurance agencies, production workers in an appliance firm and workers in a utility company. They indicate that while there are some subtle differences among organizations, legitimate and expert power are recognized as the most important reasons for complying with organizational superiors and provides the strongest and most consistent positive correlation with satisfaction. Coercive power is the least likely reason for compliance, and negatively correlated with satisfaction.

However, it has been argued that their instrumentation, in which respondents are required to rank order five items describing the five bases of power, automatically guarantees that if one power base is positively correlated with satisfaction, at least one will be negatively correlated. Despite this argument, the rank-order method is used by others including Zirkel and Guditus (1979).

Slocum (1970) conducts research on the power bases of university graduates employed full time in primary jobs in a Pennsylvania steel mill. A poll of 96 individuals from the metallurgy laboratory and engineering department complete an employee satisfaction inventory and a power base questionnaire. His findings are consistent with those of other researchers, and include the conclusions that (1) expert power is the most prominent base of power and strongly correlates with employee satisfaction; (2) legitimate power is the second most prominent base of power, is negatively correlated with employee satisfaction, but demonstrates no clear relationship with performance criteria; (3) referent and reward power are of intermediate importance, with referent power positively correlated with performance and employee satisfaction, while reward power has a negative correlation with performance but no correlation with employee satisfaction; and (4) coercive power is least preferred and negatively correlated with performance and employee satisfaction. Bachman et al. (1968) and Slocum

agree that expert power is the most prominent base and correlated with job satisfaction, whereas coercive is the least preferred and negatively correlated. Bachman et al. also identify legitimate as a prominent base of power and positively correlated, whereas Slocum says that legitimate is the second most prominent, but negatively correlated with satisfaction.

Morrissey (1988), obtaining information from 141 direct subordinates of 32 chief executive officers of business organizations, indicates that chief executive officers are inclined to rely on a combination of referent power and information power more than all other bases of power combined. Those who rely on referent and information power are more satisfied with the achievement of their work objectives. Subordinates, who report to chief executive officers relying on referent power and information power, are more satisfied with their working relations and supervision. Those findings are significantly different than those of Bachman et al. (1968) and Slocum (1970). However, it should be noted that Bachman et al. and Slocum only used the original five bases of power identified by French and Raven (1959), which does not include information power that is incorporated into the Morrissey study.

Freiberg and Nellweg (1985) use the power bases of French and Raven to explore the specific types of power that emerge from

communication messages used by fifteen chief executive officers as they interact with others. The data base consists of one hour tape-recorded interviews of responses to three hypothetical questions asking chief executive officers to indicate how they would influence other members of the organization to accept their view. Results indicate that coercive, expert, legitimate and referent power are used quite extensively, while reward power is utilized significantly less. They also point out that chief executive officers use expert power more frequently for upward and horizontal communications, while legitimate power is more frequently employed for downward communications. This is an interesting conclusion, but raises other fundamental questions. For example, does the extent of usage of legitimate power with subordinates increase with descent through the hierarchical structure? Does horizontal communication refer strictly to communications between same level employees within the same organization, or to those within different organizations who have identical positions? In horizontal communications, are members who are subordinate to chief executive officers yet integral members of the management team, included in the communication network?

Weinstein and Gent (1983), in a six-month longitudinal study conducted at one-month intervals and using 135 employees from six administrative divisions within a city government from the

northeastern United States, relate supervisory power and employee performance to job climate conditions. They determine power bases of the city managers by asking employees to rank order five reasons for following suggestions of their superiors. These five reasons represent the five power bases from which it is concluded that when perceived climate is favourable, power does not predict performance. However, for most cases under investigation, when perceived climate is unfavorable, power is positively related to performance.

Mulder, DeJong, Koppelaar and Verhage (1986), in a study involving 125 male leaders who occupy a position of proxy-holder or higher in a banking corporation, investigate relationships between leaders' effectiveness, situation and power. Using the French and Raven (1959) power bases with three additional concepts - reciprocal open consultation, upward influence and outward influence, they conclude that legitimate power, reward power and expert power are more prevalent in crisis situations. Open consultation is judged to be more effective in non-crisis situations.

Tjosvold (1985) examines power and social context in superior-subordinate interaction by surveying 90 undergraduates from business administration courses at Simon Fraser University who acted as managers with either high or low power. He concludes that in contexts representing cooperation between

superiors and subordinates, the superiors are more likely to use their power for constructive purposes. In competitive and individualistic contexts, superiors are not inclined to use their resources to facilitate subordinate performance. Tjosvold states that it is the social context rather than the extent of superiors' power that affects the use of power and interaction with subordinates. However, caution must be exercised because subjects are not managers with experience and they respond to hypothetical questions.

Patchen (1974) examines the locus and basis of superiors' influence on organizational decisions. He studies 33 decisions in 11 business firms pertaining to specific purchases (e.g., to use hydrochloric acid instead of sulfuric acid). The focus is on who is involved in the decision process, who is most important, and why they are most influential. While there is not full agreement on who is most influential, all those identified as influential do have an important role in the decision-making process. In response to why an individual is considered most influential, a large majority of respondents identify specific characteristics of the influential individual. The second most frequently mentioned reason relates to expertise. Patchen points out that coercive and reward power are noticeable by their absence since influence is never attributed to control over material sanctions, nor to activities involving threats or punishment. Referent power is rarely mentioned but an

individual's expertise is frequently quoted as to why an individual is influential. Another significant aspect noted in this study is "that people at different hierarchical levels have somewhat different perceptions concerning the amount of influence exerted at each organizational level"(p.215). This being the case, it is also conceivably that people at different levels may have different perceptions of the extent to which various bases of power are utilized.

Abdalla (1987) examines the effectiveness of six supervisory bases of power for 255 Arab middle management personnel. He reports that various characteristics are significant predictors of power bases. Eight predictors, including the subordinate's level of education, superior's expertise, and years of work experience significantly contribute to the position-organization power base. Five predictors, including subordinate's level of education, job scope, and superior's level of expertise significantly contribute to the variation in the expert-referent process. As for reward-punishment power bases, four predictors are significant contributors to the explained variance. These include the subordinate's level of education and level of experience. Thus, the subordinate's level of education has a dominating negative effect on the three influence processes identified in the study. Kipnis et al. (1980), who identify eight dimensions of influence, also indicate that a number of specific variables are related to the relative measure of power. These

include the organizational status of the respondent and organizational size.

The research reviewed to this point focuses on a variety of non-educational organizations. A number of studies involve subordinates who tend to be under direct supervision as they perform their job responsibilities, while others are of a speculative nature involving subjects, such as university students, who are not directly involved in the superior-subordinate relationship in a specific working context. Two studies involve chief executive officers, but one of these involves responses to hypothetical situations. In such a situation, the power measure does not really consider any resistance from the power recipient which might modify the preference and actual utilization of a specific power base.

There is a general belief that the nature of superior-subordinate interaction in educational organizations is different than that which exists in most business sector organizations. While the authority for supervision of employees exists, there is a general tendency for subordinates to perform their responsibilities without direct supervision. Thus, an examination of the studies of power in educational environments must consider the nature of the relationship between powerholder and power recipient.

Power Studies in Educational Environments

Most studies of power in educational organizations focus on the social power bases of school principals. In the majority of these studies, power is used as an independent variable in an attempt to ascertain the effects of the various power bases on specific factors related to organizational effectiveness. Balderson (1975), in a study involving 36 elementary school principals from a Western Canadian urban school district, indicates that expert power is highly correlated with teacher morale and teacher satisfaction. Coercive power generally receives the highest score in those situations where there is an expressed preference by teachers for transfer-out of the school and when principals wished to maintain the status quo. Reward power is recognized by only 5% of respondents, while 17% perceive principals to use a mixed power base. For the five principals who are responsible for two schools, analysis reveals that perceptions are congruent for only one pair of observations, partially congruent for three and incongruent for one. There is no attempt to ascertain which variables may contribute to these incongruencies, although he does speculate on some possible explanations including that (1) fewer opportunities for interaction in satellite schools, (2) differences in the size of schools, and the possibility that principals are really using different power bases. He also points out that "teachers can and do discriminate among the

types of power principals exercise" (p.3). Thus, it is possible that subordinates with varying proximity or accessibility to their leader, and even individuals at different levels of the hierarchy may have different perceptions of their leaders' bases of power.

Cross (1986), whose study is set in a similar environment, collects data from a sample of 63 elementary schools and 432 teachers from 25 different school boards in Ontario. He finds a "definite relationship between the teachers' perceptions of the power bases used by the principal and their perceptions of indicators of school effectiveness"(p.99). There is no analysis to account for those differences in perceptions of power bases. Thus, further research is required to ascertain the particular variables that might be considered in the selection and hiring of effective principals. While Cross does draw from the effectiveness literature to identify some indicators of effective principals, his study does not determine whether these factors are correlated with perceived power bases.

Gunn and Holdaway (1986) investigate the job satisfaction of school principals and its relationship to the principals' perceptions of their influence, their effectiveness and their school's effectiveness. Their sample consists of 155 senior high school principals from the Province of Alberta who give a

self-perception rating of their power bases and complete a job-satisfaction instrument. Ten principals who respond to the questionnaires are also interviewed in order to expand upon, clarify, and enrich questionnaire data. Using stepwise multiple regression analysis, they determine that personal qualities and characteristics, and expertise as an administrator are the best predictors of the overall level of principal influence. These variables explain 33% of the variance, with personal qualities and characteristics accounting for 26%. Gunn, Holdaway and Johnson (1988) indicate "that if principals are to re-establish some measure of control over educational events, they must first be aware of the nature and form of social power" (p.3). This position may be equally as valid for other educational administrators, if they are to influence school personnel under their supervision.

Stimson and Appelbaum (1988) conclude, from their study of 25 principals and 349 teachers in an Anchorage school district, "that principals need specific training in the use of power"(p.313). They find that teachers usually view principals as relying on personal, rather than positional power. The median score for expert power is highest followed by referent, information and legitimate (tied), reward, connection, and coercive power. They also find a positive correlation between teacher satisfaction and all three personal power styles. The correlation for referent power (0.58) and expert power (0.67)

are statistically significant. All positional power styles are negatively correlated with teacher satisfaction. Coercive power (-0.54), legitimate power (-0.46) and connection power (-0.37) are statistically significant. Additional conclusions drawn from the data are that teachers who are the most satisfied work under principals who clearly understand their own power styles, that is, agree with the teacher perceptions concerning their way of using power; and that principals who tend to overrate their personal attributes, generally have least satisfied teachers. Finally, they introduce "camouflaged power" which is examined under three sources: (1) implied but unspoken threats; (2) unpredictability; and (3) withholding information. It is reported that teachers generally respond to these power acts with resentment, and see themselves as objects of manipulation rather than as trusted colleagues. They state "the proper exercise of personal power can lead to higher levels of teacher satisfaction. Power sharing through collaboration and participative decision making, can give teachers a sense of ownership and enhance their self-esteem"(p.316). Stimson (1988), in another report, states that the use of principals' personal power is positively correlated with teacher satisfaction, while the principals' use of position power is negatively correlated. When principals use positional power, they tend to perceive their power in much the same way as their teachers perceive it. When positional power is used, perceptions of power styles are viewed differently.

The findings of Stimson and Appelbaum (1988) are similar to those of Hornstein, Callahan, Fisch and Benedict (1968). In their much earlier study which examined the power bases of school principals, Hornstein et al. collect data from 325 primary teachers from 14 different schools. They find referent and expert power to be positively related to total principal influence, while coercive and legitimate power are negatively correlated. They state that "teachers report greatest satisfaction with their principal and school system when they perceive that they and their principal are mutually influential, especially when their principal's power to influence emanates from their perceiving him as an expert"(p.509). These findings on the power bases of school principals generally agree with those of Bachman et al. (1968) and Slocum (1970) from the non-educational research with respect to expert and coercive power. Like Slocum, but contrary to Bachman et al., Stimson and Appelbaum find legitimate power to be negatively correlated with teacher satisfaction.

Schulz (1987), sampling 445 teachers from 38 public and non-public schools in Southeastern Louisiana, reports a statistically significant relationship between teachers' high job satisfaction and their perception of principals' use of referent, legitimate, expert and information power. Low job

satisfaction is significantly related to the use of coercive and connection power. Schulz and Teddlie (1989). in reference to the same research, indicate that principals' use of reward power has no significant relationship with teachers' job satisfaction and teachers with high job satisfaction describe their schools as more effective than teachers with low job satisfaction.

Hoover (1980) investigates the relationship between school administrator power base and conflict management. His sample consists of 25 principals, with five for each conflict management style. Each principal completes a conflict management survey and the Power Perception Profile--Perception of Self (Hersey & Natemeyer, 1979). Twenty percent of each principal's staff or 10 teachers, whichever is greater, are randomly selected to complete the Power Perception Profile--Perception of Other (Hersey & Natemeyer, 1979). The analysis of data determines that there is no significant correlation between school administrator power base and conflict management style at the 0.05 level of significance. He also finds general agreement between teacher ratings and principals' self perception of their power bases, and that the style of conflict management is dependent on age.

Copes (1982), sampling 456 teachers and 12 secondary school principals in urban Connecticut, suggests that principals and

teachers have different perceptions regarding the principal's base of power. However, consistent with findings of other researchers, he states that expert power and legitimate power are the predominant power bases.

Kappelman (1981) finds a significant relationship between teachers' perceptions of principals' bases of power and their style of leadership. His research is conducted in elementary, middle/junior and senior high schools in upstate New York. He collects data by using mailed questionnaires to 120 elementary and secondary school principals and 88 randomly selected teacher-subordinates of principals in these school districts. Sullivan (1981), using 80 elementary principals from two New Jersey counties, examines relationships between principals' power bases and degree of participatory management. His main findings include a minimal negative relationship between expert power and a human resource style of participatory management, a moderate negative correlation between legitimate power and human relations degree of management, and a moderate positive relationship between the expert or referent power bases, a high degree of independence and a human resource degree of participatory management.

Bennett (1988) examines the relationship between principals' stated allocation of decision power to teachers and their

perceptions of organizational conditions and practices at the central office level. He reports that when the principals are grouped on the basis of five demographic variables including building size, district size, experience of the principal, elementary/secondary and gender, large variations in the nature and strength of the overall relationship among variables are found. These differences are more pronounced in the case of female principals and principals with under seven years' experience.

Muth (1973, 1984) proposes an interactive model to relate power behavior to a conflict-consensus continuum. After relating the power behavior of 35 principals to the degree of conflict-consensus as perceived by 366 teachers, he concludes that coercive power tends to generate greater conflict, whereas more influential principals tend to have less conflict or greater consensus. Muth, who cites the need to rethink the manner in which power is viewed, concludes that power will positively or negatively impact organizational effectiveness depending on the type of power used and how it is perceived. Thom (1977), collecting data from 37 secondary schools in the Midwest, includes another conflict variable called evaluation conflict and essentially verifies the original findings of Muth.

Obi (1978) examines the perceptions of administrators, supervisors and teachers regarding the effectiveness of

authority, power and influence in changing teacher behavior. He reports that the results vary for administrators, supervisors and teachers. Teachers perceive influence as most effective with supervisors in 8 of the 10 functions identified for the study, which leads Obi to conclude that supervisors rely most on influence rather than on authority or power to change teacher behavior. Porter and Lemon (1988), using the Kipnis et al. (1980) typology in a study of elementary principals in North Dakota and Minnesota, say that their findings confirm the view that principals are generally perceived by their teachers to use similar combinations of power strategies. "Rationality was the most frequently used strategy, followed by Ingratiations, Upward Appeals, Coalitions, Exchange, Assertiveness, and Sanctions" (p. 31). The use of assertiveness and sanctions, although rare, produce a negative perception of school climate among teachers. Porter and Lemon conclude that elementary principals can create more effective schools with more open climates by increasing their use of the power strategies of rationality, ingratiation, exchange and coalitions, while reducing their use of sanctions and rewards.

Reyes and McCarthy (1986), although examining the power bases of lower participants in an educational organization, point out relevant factors related to predictors of power. Increased control is related to length of service, and there is a positive relationship between expert knowledge and perceived power.

Studies dealing with power bases of superintendents include Benzel (1983), Welzant (1986), Isele (1987) and Stotts (1987). Benzel examines power base preference in conflict resolution situations at the subordinate, lateral and superordinate levels. Five situations dealing with conflict at each level are presented to superintendents in Washington State. Their preferred action is selected from five responses which represent the five power bases as proposed by French and Raven (1959). He finds a significant difference in power base preference of superintendents at each level of conflict. Referent power is the most preferred base in subordinate and lateral conflict while expert power is the most preferred in superordinate conflict. He also reports that a significant difference exists in the superintendent's preferred power base in subordinate conflict based on educational level. He recommends that the relationship of variables such as age, gender, and years of experience to power base preference be examined, along with collection of data from different levels in the hierarchical structure.

Welzant (1986), using a sample of 144 Georgia school superintendents, focuses on their preferred social power use mode in local curriculum development. Using perception of self, he finds a significant relationship between a preference for expert, legitimate and information power, and system-wide

curriculum development activities. The self perception does not reveal any significant difference between superintendents for selected personal and district characteristics.

Isele (1987) deals with a comparison of perceptions of the power bases of superintendents as perceived by self and management team personnel within effective school districts. Her limited sample involves 10 educational districts in which management teams, as identified by superintendents, consist of no more than 15 members. In total, 96 management personnel give a rating for their perception of the power bases use by their superintendents. She also compares the management teams' perception of the superintendent with superintendents' self-perception by using self-perception data collected by Stotts (1987), who had conducted a simultaneous study with the same sample of Ohio superintendents. Additional exploration, in the Isele study, focuses on selected demographic independent variables confined to characteristics of the power recipient. When these data are subdivided on a board basis for analysis, categories of one individual often form the basis for specific conclusions. The findings drawn from her analysis indicate that (1) discrepancies exist between the superintendents' self-perceptions and the management teams' perceptions of the superintendents' power bases, with differences found across all power bases; (2) when analyzed by gender of the respondents,

significant differences are found among the respondents' perceptions of superintendent' power bases; (3) secondary and elementary principals demonstrate the greatest similarity on ratings of superintendents' power bases; (4) significant differences are found among respondents' perceptions of their superintendents' power bases when analyzed by role in the organization, educational level, and length of service; and (5) the power base, as identified by management, least used by superintendents is coercive power, while expert power is perceived as the most frequently used power base.

Stotts (1987) investigates the power bases of effective school district management teams, including 10 superintendents, using the Perception-of-Self Power Profile (Hersey & Natemeyer, 1979). He concludes that among the five independent variables - role, age, years in current position, years in the field of education, and level of education - several moderate or substantial positive or negative correlations to the dependent variable emerge (exact variables are not specified). Also, the highest power base, expert power, and the one receiving the lowest rating, coercive power, are the same as those that the management team in the Isele (1987) study perceive as their superintendents' highest and lowest power bases .

Copes (1983), Hoover (1980), Isele (1987), and Stimson and Appelbaum (1988) make comparisons between self-perceptions and

perceptions-of-other. Copes finds that principals and teachers have different perceptions of the principals' power bases, while Hoover indicates that there is general agreement between the perception-of-self and perception-of-other. Stimson and Appelbaum further complicate the issue by stating that when a leader is perceived to be using position power the self-perception and perception-of-other are generally incongruent. When subordinates perceive their leader to use personal bases of power, general congruency with principals' self-perception exist. Isele, however, finds overall differences between self-perception and perception-of-other, with those individuals in closer proximity having greater congruency in their power base perceptions.

The four studies identified above also lead to a fundamental question regarding the comparability of self-perception and perception-of-other. Is it a comparison of the same or different variables? If power is a social relationship within a social system, then the power as seen through one's own eyes may be different from power as seen through the eyes of others. An individual's interpretation of the actions of others may be influenced by particular contingencies or demands of the position that exist within the particular social system. While recognizing that the intentions of the powerholder may be misinterpreted, the driving force for a

power recipient's response appears to be dominated by the personal interpretation which is given to the actions of the powerholder. While perception of others may indeed vary, they should represent a fairly accurate picture from an individual perspective. A general, but accurate, picture should be obtained through a global examination of the perceptions expressed by a particular group of subordinates who operate in a social system with similar internal and external contingencies.

Isele (1987) recognizes that different subordinates may have different perceptions of their leaders' power bases, but she does not attempt to determine if a leader may have different self-perceptions in respect to the power bases which they utilize with different subordinate groups. Furthermore, she proceeds to make the same assumption as previous researchers regarding the compatibility of self-perception and perception-of-other.

It is generally recognized that if school administrators are to be effective, they must understand that the concepts of leadership and power are inseparable (Giammatteo & Giammatteo, 1981; Herlihy & Herlihy, 1985). Leadership involves the process of influencing the behavior of others, whereas power is the means utilized by leaders as they attempt to gain the compliance of their subordinates. The variety of research

initiatives in educational organizations have provided a much greater understanding of power relationships, but the general tendency to focus at the school level, and to use power as an independent variable rather than as a dependent variable means that further research is necessary. Other unresolved issues such as the comparability of self-perceived power and power as perceived by others need to be investigated.

Statement of the Purpose and Research Questions

A review of the power literature reveals the paucity of substantive research that fully explores the various power bases used by management personnel of educational school districts. There are a limited number of studies that use power as a dependent variable. Also, the majority of studies that do use personnel from educational organizations focus on school principals. Thus, the primary purpose of this research is to explore the bases of power of school district chief executive officers.

Using data from selected school districts, as provided by chief executive officers and subordinate personnel, the three primary research questions to be addressed are

- (1) Are there differences among three groups of subordinate

personnel in their perception of the power bases of their chief executive officer (perception-of-other power profiles)?

- (2) Do chief executive officers perceive themselves to use different power bases when interacting with different groups of subordinate personnel (self-perceived power profiles)?
- (3) Are there differences between a subordinate group's perception of their chief executive officer's power bases and the chief executive officer's self-perception of power bases used with that particular group (self/other power profiles)?

In addition to the primary research questions, further analysis is to be conducted by focusing on the following subsidiary questions:

- (1) Are there differences in the perceived power bases of chief executive officers when data are classified by:
 - (i) Chief executive officers' years of experience in their current position?
 - (ii) Years of experience of subordinates in their current positions?
 - (iii) Age of chief executive officers and subordinates?

- (iv) Gender of the subordinates?
 - (v) Size of the school districts?
 - (vi) Geographical distance between the school principal and central office?
- (2) Are there differences in the perceived power bases of chief executive officers employed by Integrated School Boards and those employed by Roman Catholic School Boards?
- (3) Are there differences between the power profiles of those chief executive officers who are promoted from within a board and those individuals who move to the position from another board?

Statement of Hypotheses

The primary analysis focuses on a comparison of power as perceived by different groups of subordinates. All hypotheses stated focus on a comparison of power bases, but also reflect the non-definitive nature of the current literature. While some research and even the conceptual framework may tend to support directional hypotheses, the conflicting evidence, the lack of substantive data, and the extremely limited research conducted in the same organizational context as this present study, appear to justify a more cautious view. Thus, the following null hypotheses:

- (1) No differences exist among the perception-of-other power profiles.
- (2) No differences exist among the three self-perception power profiles.
- (3) No differences exist among the three self-other power profiles.
- (4) No differences exist among power profiles when data are classified and analyzed using specific demographic variables.

Definition of Terms

Definitions for significant terms are provided below to ensure that this study is understood and interpreted within its proper context. The first category of definitions refers to various aspects of power, while the second category pertains to terms which arise because of the specific context in which this study is conducted.

Power definitions

Power Base - A relationship between a social agent, O, and a person, P, which is the source of power. (French & Raven, 1959)

Coercive power - Extent to which a manager can deny desired rewards or administer undesirable outcomes in order to control other people. (Schermerhorn et al., 1982)

Connection power - Based on connections that a leader may have with influential or important individuals inside or outside an organization. (Hersey & Blanchard, 1982)

Expert power - Ability to obtain compliance on the basis of professional knowledge, information and skills. (Sergiovanni & Starratt, 1988)

Information power - Based on the leader's possession of or access to information that is perceived as valuable by others. This power base influences others because they need information or want to be in on things. (Hersey & Blanchard, 1982)

Legitimate power - Based on the internalized values which dictate that the leader has a legitimate right to influence and that the follower is bound to accept. Organizational hierarchy and roles legitimize the power that people have within the organization. (Rashid & Archer, 1983)

Referent power - Based on an individual's identification with another individual. Such identification is based on the

target's attraction toward an agent, or more specifically, the target's desire to identify with and please the agent. (Freiberg & Nellweg, 1985)

Reward power - Based on the ability of the powerholder to provide benefits to the power recipient. (Thompson & Luthans, 1983)

Self/other power profiles - Power profiles obtained by finding the difference between a respondent's perception of a superintendent's power bases and the superintendent's self-perception for that particular group of respondents.

Perception-of-other power profiles - Perception of the chief executive officers' power bases as perceived by assistant superintendents, program coordinators and principals.

Self-perceived power profiles - Three sets of scores obtained when superintendents' give a self perception of the seven power bases utilized in directing assistant superintendents, program coordinators and school principals.

Context specific definitions

Superintendent - The chief executive officer of a school district.

Assistant superintendent - An individual employed by a school board in a line position to assist the superintendent in the management and supervision of an educational district.

Program coordinator - An individual hired as a curriculum specialist to assist in the implementation of instructional programs, and to organize and provide teacher inservice.

Integrated school districts - School districts under the jurisdiction of the Anglican Church, United Church and Salvation Army religious denomination.

Roman Catholic school districts - School districts which are under the jurisdiction of the Roman Catholic Church.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

The design and methodology of this study are outlined in this chapter. The context of the study is described with particular emphasis on the organization and structure of the Newfoundland and Labrador educational system. Details regarding the sample and instruments used in the study are provided, specifics pertaining to the data collection procedure are presented, and the data analysis format is described. The two concluding sections of this chapter outline the delimitations and limitations of the study.

Context of the Study

This study is based on data gathered from selected school board personnel in the province of Newfoundland and Labrador. There are presently 18 Integrated School Boards, and 12 Roman Catholic School Boards dispersed throughout the province, varying in size from approximately 1,400 students to 20,000 students. There are also two boards which operate on a province-wide basis consisting of a Pentecostal School Board with an enrolment of approximately 6,000 and a Seventh-Day Adventist School Board with about 300 students.

Chief executive officers (superintendents) are hired by the school boards and are formally approved by the Provincial Department of Education. They are responsible for the day-to-day operation of the school district. Since the elected trustees are volunteers who receive no remuneration for their efforts, their commitment in time is minimized. Many major decisions, initiatives and policy formulation activities become the responsibility of the superintendent. However, the ultimate approval for these decisions must come from the elected trustees, which forces superintendents to be conscious of the political implications of their decisions.

The administrative assistants (assistant superintendents) are hired by school boards to assist in the day-to-day administrative operation of the board. Salary allocations are provided from the Department of Education based on the number of regular teachers employed in the district, and the regular teacher allocations are determined by the Department based on district enrolments. For fewer than 200 regular teachers there are two assistant superintendents, 200-299 regular teachers enable boards to employ three assistants, 300-399 regular teachers entitles boards to have three assistants, while boards with more than 400 regular teachers may employ five assistant superintendents. Anomalies do occur because school boards may use 50% of the salary allocations for employment of school-based professional personnel. It should also be noted

that assistant superintendents and chief executive officers are the only professional educational personnel at the school and district levels who are not members of the Newfoundland Teachers' Association. Consequently, they do not have the employment protection which is generally provided to unionized employees through tenure and grievance procedures.

School principals are considered the first-line personnel at the school level, and they deal directly with the assistant superintendents or superintendent, depending on the particular issue and the manner in which the district administrative duties are delegated. Principals also meet on a regular basis with district administrators to deal with general rules, policies and guidelines pertaining to the operation of schools. The extent of their autonomy may vary between boards, but general guidelines under which they operate emanate from the superintendency.

Curriculum consultants (program coordinators) are hired by boards to coordinate program implementation and to conduct teacher inservice in specific subject areas. Provincial salary allocations permit boards to hire from seven to ten program coordinators depending on the number of regular teachers. At present, regulations require boards to hire at least 50% of these personnel for their designated purpose which means that the actual number can range from three to ten per board. These

individuals are considered staff personnel and are members of the Newfoundland Teachers' Association. While their place of operation is the school district central office, a significant proportion of their time is devoted to interaction with school principals and classroom teachers.

The Sample

Superintendents asked to complete the self-assessment power inventory include 12 superintendents from Integrated School Districts and 11 superintendents from Roman Catholic School Districts in the Province of Newfoundland and Labrador who are employed in their respective positions for at least one year. All 12 Integrated superintendents and 10 of the 11 superintendents from the Roman Catholic Boards return the questionnaires. The two province-wide school boards, Seventh Day Adventists and the Pentecostal, are excluded. The Pentecostal Board tends to function on a geographical basis, with assistant superintendents in each office. Thus, those personnel assigned to branch offices would have less frequent contact with the chief executive officer, hence making it more difficult for them to accurately perceive the power bases of their school superintendent. The Seventh Day Adventist Board, with approximately 300 students in 1988-89, is not allocated regular central office personnel. Hence, it does not have either assistant superintendents or program coordinators to provide data for this research.

The one-year requirement is considered necessary to ensure that superintendents have sufficient time to establish their bases of power, and for assistant superintendents, program coordinators, and principals to develop a reasonably accurate perception of their superintendent's bases of power. Cross (1986) selects principals with at least two years experience, but Balderson (1975) surveys principals who have at least one year in their current position. Isele (1987) confines her sample to those superintendents with a minimum experience of one year.

Respondents asked to give their perception of their superintendents' power bases are selected from the 12 Integrated and 11 Roman Catholic School Boards where superintendents agree to complete the self-assessment power profile. In these districts all assistant superintendents and program coordinators, who have worked for at least one year under their present superintendent, are requested to complete the perception of superintendent's power base questionnaire. In total, 48 assistant superintendents and 130 program coordinators are requested to participate in the research. Questionnaires are returned by 43 assistant superintendents and 105 program coordinators representing all 23 school districts selected for the study. Questionnaires received from one assistant superintendent and three program coordinators

are not used because of incomplete data. Thus, 87.5% of the assistant superintendents and 78.5% of program coordinators identified for the sample provide data that are used for the statistical analyses.

In the selection of principals, all are requested to participate if there are 10 or less in the school district who have been employed under the current superintendent for at least one year. If there are more than 10 principals in a district meeting the one-year requirement, a stratified random sample of ten is selected. An attempt is made to balance the selection of male/female and secondary/ elementary schools with gender receiving the priority treatment. This implies that the first priority is to select five males and five female principals followed by a balancing of secondary and elementary principals. When random selection is necessary, the table of random digits is utilized to determine subjects for the sample. In total, 218 principals are asked to cooperate in this research, and of that total, responses are received from 166. From the returned questionnaires, 160 are completed to the extent that they can be used in the analysis. This represents 73% of the sample of principals. When the totals from principals are combined with assistant superintendents and program coordinators, the usable responses represent 76.7% of the sample of subordinate personnel. The 22 superintendent

questionnaires that are returned are usable, for a return rate of 95.6%.

The necessary information to complete the selection procedure is obtained as follows:

- (1) Names of superintendents are obtained from the *1988-1989 School Directory* for Newfoundland and Labrador since any name not contained in that document would not meet the one-year requirement. After determining that seven boards hired new superintendents since June, 1989, the remaining 23 superintendents are sent a formal request to participate in the study. All indicate a willingness to participate.
- (2) The 23 Superintendents who meet the stated criteria and agree to participate in the study are requested to verify that an attached list of assistant superintendents, program coordinators and principals have worked under their leadership for at least one year.
- (3) After the selection procedure is completed, assistant superintendents, program coordinators, and principals are requested on an individual basis to participate in the study. All questionnaires are to be returned in the prestamped, addressed envelope provided.
- (4) All respondents are assured that all information is to be confidential and no individual or board is to be identified in the analysis and presentation of data.

Selection of instruments

Numerous instruments (Bachman et al. 1968; Comer, 1984; Dieterly & Schneider, 1974; Richardson & Thompson, 1981; Richmond et al., 1980; Stahelski & Frost, 1987; Student, 1968) are utilized to measure the bases of social power. Most of these instruments deal only with the original five bases of power proposed by French and Raven (1959) which do not include information power and connection power.

The two instruments used in this study to measure the seven bases of power are *Power Perception Profile: Perception of Other* and *Power Perception Profile: Perception of Self* (Hersey and Nagemeyer, 1979). Permission to use these two copyrighted instruments has been obtained from Leadership Studies (Appendix C). The instruments which are used in recent research on power (Isele, 1987; Stimson, 1988; Stotts, 1987; Szakonyi, 1986; and Welzant, 1987), contain an item on each base of power. These seven items are combined to form twenty-one pairs of reasons why individuals may do the things their leaders suggest. In completing the questionnaire, respondents are requested to allocate three points between the two alternatives. Although respondents are confined in the overall discrimination among the different power bases, a degree of independence does exist for each power base since

each can have a measure ranging from zero to 18. However, two power bases cannot have a total rating of zero, and respondents can not give an equal rating when comparing two power bases. In respect to the reliability of the instrument, Isele reports that, based on a test-retest method in a pilot study using a sample of 30 male and female graduate students, the reliability scores are coercive 0.88, connection 0.79, expert 0.94, information 0.86, legitimate 0.84 and reward 0.66

To obtain the necessary demographic data for the study, a supplementary questionnaire is designed for each of the four groups of respondents (Appendix D). These are attached to the primary questionnaire sent to all respondents.

Data Collection

Data are obtained from a sample of Newfoundland and Labrador superintendents, assistant superintendents, school principals and program coordinators who are selected according to the pre-established guidelines. The initial step is a request to the 23 superintendents of Catholic and Integrated School Boards to cooperate in the study and to verify the information for the identification of subordinate personnel who meet the one-year employment requirement. In those boards having more than ten principals, the predetermined selection procedure is applied.

The actual data are obtained as follows:

- (1) All superintendents, assistant superintendents, program coordinators and principals in the sample are requested to provide demographic data by completing a supplementary questionnaire.
- (2) All superintendents, who agree to participate in the study, complete a power perception profile - perception of self. They give three responses, one to indicate power bases used with assistant superintendents, a second to indicate power bases used with program coordinators, and a third to indicate power bases used with principals. The completed instruments are returned to the researcher in the prestamped, addressed envelope provided.
- (3) Assistant superintendents, program coordinators and school principals complete the *Power Perception Profile - Perception of Other* which give their perception of the superintendents' power bases. The completed instruments are returned to the researcher by each respondent in the prestamped, self addressed envelope provided.

Data Analysis

The focus of this study is four-fold in nature. First, to determine if there are significant differences among the power base profiles of chief executive officers as perceived by

three groups of subordinate personnel - school principals, assistant superintendents and program coordinators; secondly, to determine if there are significant differences among the three *Self* power-profiles; thirdly, to determine if there are significant differences among the three *Self/Other* power-profiles; and fourthly, to analyze the perception-of-other power profiles when data are subdivided according to specific demographic variables.

After the power profile instruments are received, the responses are tabulated in a power profile by the researcher. The tabulated scores reflect the relative strength of each of the seven power bases for each respondent. The power profiles, labelled *Other*, represent the subordinate groups' perception of the superintendents' power bases and those labelled *Self* represent the superintendents' perception of their own power bases. Those labelled *Self/Other*, obtained by subtracting each individual subordinate score for his/her superintendent from the superintendents' self-perception for that particular group of subordinates, represent differences between self-perception and perception-of-other. For the *Other* power profiles and *Self* power profiles, ratings can range from zero to 18, whereas for the *Self/Other* power-profiles ratings can range from -18 to 18.

To determine whether differences exist within each of the *Other* power profiles and *Self/Other* power profiles, the multivariate analysis of variance (MANOVA) procedure is used. Where global differences exist, as determined by the MANOVA, a further analysis is conducted using the univariate statistical procedure analysis of variance (ANOVA). For this procedure each power base is examined on an individual basis over the different categories for each demographic variable. The final post hoc analysis used, if the ANOVA indicated significant differences, is Tukey's test with harmonic mean of sample sizes for all pairwise comparisons. A probability level of 0.05 for extreme values is selected.

For an examination of the three self-perception profiles, consideration is given to utilizing the doubly multivariate statistical procedure for repeated measures. However, with a sample of 23 superintendents, who give a repeated score for each of the seven power bases over three different reference groups, an over specification of the model could result. The number of variables (3 X 7) is essentially the same as the sample size. Thus, a compromise model appears more appropriate. Each power base is examined on an individual basis over the three respondent groups by using MANOVA. Following this initial examination to determine if any global differences exists, a post hoc analysis using Tukey's test of pairwise comparison is utilized.

For exploration of the subsidiary questions, data are grouped according to particular demographic variables. The statistical analysis, which is the same as that utilized for the *Other* and *Self/Other* power profiles, includes an initial examination by MANOVA, followed by ANOVA for each power base, and a post hoc analysis using Tukey's test with harmonic mean of sample sizes.

Significance of the Study

The position of chief executive officer represents the ultimate decision-making level for professional employees of an educational school district. Thus, if research is to contribute to the effective functioning of chief executive officers, a thorough investigation of the power relations must be undertaken.

Power is generally assumed to be an essential component of leadership skills. An investigation to determine predictors of power bases may increase the likelihood that chief executive officers will be more proficient in influencing the behavior of subordinates. Superintendents will be able to evaluate their approach to the power dynamics of leadership based on the approach and perceived effectiveness of their colleagues. Necessary adjustments can be considered if deemed essential for the creation of a more effective and efficient organization.

School boards, in assessing the qualities of candidates for chief executive officer's positions will be able to utilize the increased knowledge regarding power bases to ensure that they employ an individual who possesses qualities compatible with those organizational requirements which they have identified. As Kotter (1977) states "in today's large and complex organizations, the effective performance of most managerial jobs requires one to be skilled at the acquisition and use of power" (p.125).

From a more general perspective, most research does not specifically focus on exploring predictors of power bases. Thus, this study will make a significant contribution by providing a broader understanding of power bases in educational organizations, rather than just further exploring *how* power bases influence a particular dependent variable.

Limitations of the Study

The scope of the data available for analysis is limited due to the utilization of a questionnaire for data collection. This procedure prohibits the collection of qualitative data that may provide significant insight into the various issues that may influence self-perception and perception of others. Furthermore, this exploratory study is designed to obtain a

general assessment of the ongoing power bases utilized by chief executive officers, even though significant current issues of an individual or board nature may influence the perception of respondents. Power is seen as a very complex phenomenon, but this analysis is limited to specific conclusions related to the selected independent variables under investigation, even though extraneous variables may influence perceptions of chief executive officers' bases of power.

A further limitation of this study on bases of power applies to the generalizability of any specific conclusion that may be indicated. It must be recognized that the data are collected from an educational environment which has a significant denominational component, uniform wages and working conditions for all boards in the province, and a centralized curriculum. Also, a significant portion of educational expenditures is allocated through provincial funding formulae which means that school district superintendents do not have much flexibility in using financial resources in influencing perceptions of power.

Delimitations of the Study

This study is delimited to selected professional educational personnel in the Province of Newfoundland and Labrador. The

sample is confined to selected chief executive officers, assistant superintendents, program coordinators and school principals from 12 Integrated and 11 Roman Catholic School Boards. Chief executive officers are employed in their current position for at least one year, while subordinate personnel have at least a one-year tenure under the current chief executive officers. This delimitation of one year employment is deemed necessary in order to provide a reasonable amount of time for respondents to become reasonably familiar with the bases of supervisory power generally utilized by their chief executive officers.

Data for analysis are confined to chief executive officers' self-perception, and subordinates' perceptions of their chief executive officers' bases of power. The independent variables are restricted to subordinate personnel classification, type of school board, selected characteristics of the various subordinate groups, and selected school and school district characteristics.

CHAPTER IV

ANALYSIS OF DATA

An analysis of data, organized according to the four hypotheses under investigation, is presented in this chapter. The primary analysis utilizes the inferential statistical procedures multivariate analysis of variance (MANOVA), univariate analysis of variance (ANOVA) and Tukey's post-hoc test for pairwise comparisons. A further analysis of data is provided through the use of descriptive statistics including means and standard deviations. These descriptive statistics provide information for a more comprehensive insight into the hypotheses under investigation, even though generalizations are based on the inferential statistics.

Perception-of-Other Power Profiles

In the examination of the hypothesis that states *no differences exist among the perception-of-other power profile*, the multivariate analysis of variance (MANOVA) is used to compare ratings of superintendent's power bases as perceived by 42 assistant superintendents, 102 program consultants and 160 school principals. The hypothesis is accepted at the 0.05 level of significance, where $F(12,592) = 1.35$. The analysis (Table 4-1) reveals that no significant differences exist

among the three subordinate groups in their perception of the power bases of their superintendent. However, in view of the wide difference in sample size among the three subordinate groups, a further analysis is completed to determine if similar results would be obtained using a random sample of 42 program consultants and 42 principals, along with the 42 assistant superintendents. This analysis produces an almost identical F-value of 1.30 which further substantiates the conclusion that there are no significant differences among the three subordinates groups in their perceptions of their superintendent's power bases.

While there are no statistically significant differences among the three subordinate groups, an examination of the descriptive statistics reveals some interesting comparisons (Table 4-1). For all three groups, expert power receives the highest rating and the legitimate power base receives the second highest rating. These two power bases are followed by information and reward power for assistant superintendents and principals, but the order is reversed for program consultants. On the average, information and reward power bases receive ratings that are 27.5% lower than the average rating for expert and legitimate power bases. Referent, coercive and connection power bases are perceived to be the power bases least used by superintendents. Principals, however, do give the coercive power base a slightly higher rating, placing it

ahead of the connection power base. Despite these minor differences, there is an amazing similarity in the overall ratings of all three groups.

Table 4-1. Superintendents' power bases as perceived by three groups of subordinates

Dep Var	Asst Superint.		P.Consultants		Principals	
	N = 42		N = 102		N = 160	
	M	SD	M	SD	M	SD
Coercive	6.71	3.30	6.59	3.22	7.04	3.49
Connection	6.74	2.79	6.71	3.15	6.47	3.05
Expert	12.19	2.86	11.84	3.99	12.13	3.34
Information	9.43	2.13	9.04	2.72	9.66	2.66
Legitimate	12.05	2.29	11.57	2.54	11.38	2.47
Referent	7.00	3.42	7.64	3.37	7.11	3.46
Reward	8.88	1.95	9.59	2.31	9.21	2.08

$F(12,592) = 1.35$ $p = 0.1855$

Self-Perceived Power Profiles

For an investigation of the hypothesis which states that *no differences exist among the three self-perceived power profiles*, data are received from 22 school district superintendents. Each is asked to give three self-perception power profiles. The first describes the extent to which each power base is used when

working with assistant superintendents, the second for power bases used when working with program consultants, and the third describes how the superintendent uses the available power bases to influence school principals.

A repeated measures design is used for the statistical analysis because there are only 22 superintendents in the sample and three ratings are given by each superintendent. In this design, the MANOVA determines if there are significant differences among the ratings for each power base, with a Tukey's post-hoc analysis used to locate any existing difference.

The analysis of data (Table 4-2) indicates that significant differences exist among the three self-perceived ratings. The null hypothesis is rejected at the 0.05 level of significance since there are differences among the three reference groups for the coercive power base. No significant differences are found among the three self-perceived ratings for the other six power bases.

As for differences among the self-perceived ratings for the coercive power base, the post-hoc analysis (Table 4-3) reveals that the mean rating of coercive power used with principals is significantly different from the self-perceived ratings of coercive power used with both the assistant superintendents and program consultants. No significant difference exists between the means for superintendents' self-perceived rating of the

coercive power when working with assistant superintendents and that used when working with program consultants.

Table 4-2. A Repeated-Measures analysis of superintendents' power bases as perceived by self for three different groups of subordinates

Dep Var	Asst Superin.		P.Consultants		Principals		F-value	prob
	N = 22		N = 22		N = 22			
	M	SD	M	SD	M	SD		
Coercive	5.86	2.98	5.68	2.97	6.81	2.63	3.51*	0.0494
Connection	7.00	3.02	6.91	2.72	6.68	3.96	0.12	0.8907
Expert	12.86	2.43	12.86	2.34	12.09	3.32	0.96	0.4015
Information	9.09	2.94	9.64	3.57	9.36	2.52	0.47	0.6303
Legitimate	11.95	2.17	11.32	1.86	11.68	1.78	1.21	0.3184
Referent	7.27	2.76	7.73	3.72	7.32	4.02	0.40	0.6783
Reward	8.95	2.59	8.86	2.03	9.04	2.21	0.08	0.9245

* significant at the 0.05 level of significance.

Table 4-3. Post-hoc analysis of coercive power base for superintendents' self-perception in relation to the three subordinate groups

	1	2	3
Ass. Superintendents(1)		0.19	5.93*
Prog. Consultants(2)	--	--	5.60*
Principals(3)	--	--	--

* significant at the 0.05 level of significance

It is noted, in the analysis of hypothesis one, that principals assign superintendents the highest coercive power rating. However, the rating is still very low compared to the ratings for most other power bases. Overall, the ratings for the self-perceived power bases of superintendents are very similar to ratings given by the three subordinate groups. Expert and legitimate power receive the highest rating, followed by information and reward power. The three remaining power bases have a varying sequence for each of the three subordinate groups. Coercive power is assigned the lowest rating for assistant superintendents and program consultants, while connection power receives the lowest self-perceived rating in reference to principals.

Self-Other Power Profiles

In the analysis for hypothesis three which states that *no differences exist among the three self-other power profiles*, ratings used in the analysis are those obtained through a mathematical transformation. They are obtained by subtracting each superintendent's self-rating by group from the individual ratings given by each member of that particular group. For example, the superintendent in school district one gives his perception of the extent to which he uses each of the seven power bases in his association with assistant superintendents. Each assistant superintendent gives a rating of the extent to which his/her superintendent is perceived to use each of the

seven power bases. The self-other power profile is obtained by subtracting the superintendent's self-rating from the rating given by each of his assistant superintendents. This process is repeated for each program consultant and each principal in school district one, and for all the subordinate personnel in each of the other school districts. Subordinate personnel from one out of the 23 school districts could not be used for the self-other power profiles because the self-ratings were not received from the superintendent.

The mathematical transformation to create self-other power profiles provides a basis for comparing differences between self-perceptions and perception-of-others, but it also reduces the potential problem that may arise because of an argument that self-perception and perception-of-others represent two different variables. A new different variable is created which can range from -18 to 18. Clustering around zero would indicate that minimal differences exist. Where the difference is positive, the perception-of-other has received a higher rating. If the superintendent's self-perception receive the higher rating, the differences are negative.

In the analysis, the MANOVA (Table 4-4) indicates that no significant differences exist among the self-other power profiles at the 0.05 level of significance. In an examination

of the descriptive statistics, it is noted that the coercive power is the only power base which has a positive difference in all three self-other power profiles. In all three cases, superintendents' ratings for their coercive power are lower than the ratings given by the subordinate personnel. Subordinate personnel see superintendents as being more coercive than what superintendents indicate in their self-perception. For connection power, the differences are negative in all three cases which means that subordinates do not value the connection power to the same extent as it is perceived by school district superintendents.

Table 4-4. Analysis of the self-other power profiles for the three groups of subordinate personnel

Dep Var	Ass/supt		Pc/supt		Prin/supt	
	N = 40		N = 99		N = 154	
	M	SD	M	SD	M	SD
Coercive	0.03	4.10	0.88	3.75	0.60	4.48
Connection	-0.68	3.92	-0.06	3.98	-0.45	4.14
Expert	0.05	3.40	-0.93	4.60	-0.18	4.88
Information	0.35	3.22	-0.76	4.61	0.70	3.61
Legitimate	-0.25	2.78	0.23	3.27	-0.51	2.98
Referent	0.78	3.17	-0.04	5.32	-0.10	5.06
Reward	-0.28	3.15	0.68	2.97	-0.07	3.19

$F(12,570) = 1.25 \quad p = 0.2421$

In all seven power bases for each group of subordinate personnel the mean differences are between -1 and 1. This indicates a fair degree of similarity among all three groups of subordinate personnel and the superintendents in their perceptions of power bases. The greatest negative difference of -0.76 is for the information power base for program consultants/superintendents self-other power profiles. The greatest positive difference of 0.88 occurs for coercive power for program consultants/superintendents self-other power profiles.

Power Bases Classified by Demographic Data

This study attempts to identify which variables from a number of demographic variables are associated with significant differences among the superintendent's power bases. Variables identified as worthy of investigation include experience of superintendents and subordinates in their current positions, age and gender of the subordinates, size of school district, geographical distance between school and central office, and type of school board (Catholic or Integrated). There is also a comparison of power bases of those superintendents who acquired the positions from within the board (place-bound) and those who actually moved to a new board to assume the position of superintendent (career-bound).

Superintendents' years of experience. This analysis of data (Table 4-5) indicates that there are significant differences among subordinates' perception of their superintendent's power bases when data are analyzed by years of experience of the superintendents in their current position. There are 199 respondents who have a superintendent with experience of ten years or less, 59 respondents have a superintendent with 11 to 19 years of experience, and 46 respondents have a superintendent with at least 20 years of experience. While the MANOVA reveals that significant differences do occur, those differences are rather restricted according to the ANOVA analysis. Actual significant differences exist only for the legitimate power base.

The post-hoc analysis (Table 4-6) reveals that power bases of superintendents with experience of 10 years or less in their current position are perceived to be significantly different from power bases of those who have experience of 20 years or more as superintendent in their current position. Those with 11 to 19 years also receive a higher rating on legitimate power and the difference is statistically significant. The difference between those with experience of 10 years or less and those having 11 to 19 years is not statistically significant.

The descriptive statistics identify superintendents with fewer years of experience in their current position as receiving significantly higher ratings for the legitimate power base. All three groups, however, perceive expert power to be the most prevalent, followed by the legitimate power base. The other five bases, when arranged by their average ratings, occupy different positions depending on the group of subordinates involved. Actual differences which account for these variations are not statistically significant.

Table 4-5. Subordinates' perception of superintendents' power bases classified according to superintendents' experience in current position

Dep Var	10 yrs or less		11 to 19 yrs		20 yrs or more		F- Value
	N = 199		N = 59		N = 46		
	M	SD	M	SD	M	SD	
Coercive	6.58	3.32	7.66	3.64	6.93	3.17	2.34
Connection	6.49	2.94	6.27	3.11	7.41	3.28	2.13
Expert	12.17	3.54	11.71	3.61	11.89	3.25	0.45
Information	9.27	2.65	9.53	2.87	9.93	2.15	1.25
Legitimate	11.74	2.56	11.59	2.40	10.59	1.97	4.19*
Referent	7.30	3.49	7.10	3.49	7.35	3.11	0.09
Reward	9.42	2.13	9.14	2.43	8.89	1.82	1.35

$F(12,592) = 1.86$ $p = 0.0365$

*significant at the 0.05 level of significance.

Table 4-6. Post-hoc analysis of legitimate power when subordinate personnel are categorized by experience of superintendents in their current position

	1	2	3
10 yrs experience or less (1)		0.19	5.93*
11 to 19 yrs experience (2)	--	--	5.60*
20 yrs experience or more (3)	--	--	--

*significant at the 0.05 level of significance.

Experience of subordinate personnel. In this analysis, based on the experience of subordinate personnel, data are classified using two different approaches. In the first instance, assistant superintendents, program coordinators, and principals are classified by their years of experience in their current position. In the second classification, subordinate personnel are grouped according to years experience with the school district. In the first analysis, the MANOVA yields an F-value of 1.07, and in the second an F-value of 0.75 is obtained. In both cases, it is determined that superintendents' bases of power as perceived by the different subordinate personnel are not significantly different when data are classified based on experience.

In the classification by experience of subordinate personnel in their current position, descriptive data for four groups are

presented in Table 4-7. All four groups perceive expert and legitimate power to be the most widely used power base followed by information and reward power. Coercive, connection and referent power are the three power bases which receive the lowest rating for all four groups. For the descriptive statistics, when data are classified by grouping subordinates according to experience with the school board, similar results (Table 4-8) are obtained.

Table 4-7. Perception of superintendents' power bases classified by years of experience of subordinates in current position

Dep Var	< 5 yrs		6 to 9 yrs		10 to 16 yrs		≥17 yrs	
	N = 100		N = 87		N = 58		N = 59	
	M	SD	M	SD	M	SD	M	SD
Coercive	6.81	3.36	6.79	3.34	7.17	3.67	6.68	3.21
Connection	6.58	2.85	6.78	3.23	6.70	3.12	6.20	3.04
Expert	11.98	3.13	11.74	3.93	11.51	3.67	13.10	3.12
Information	9.52	2.55	9.09	2.83	9.62	2.62	9.54	2.47
Legitimate	11.53	2.34	11.74	2.37	11.34	2.94	11.45	2.39
Referent	7.20	2.96	7.75	3.49	7.00	3.64	6.95	3.83
Reward	9.38	2.33	9.10	2.20	9.64	1.28	9.07	1.83

$F(18,835) = 1.07$ $p = 0.3787$

Table 4-8. Perception of superintendents' power bases classified by experience of subordinates with the school district

Dep Var	<= 2 yrs		3 to 10 yrs		>= 10 yrs	
	N = 19		N = 86		N = 199	
	M	SD	M	SD	M	SD
Coercive	6.89	4.16	6.44	3.58	7.02	3.20
Connection	7.21	3.25	6.40	3.08	6.61	3.01
Expert	12.37	3.30	12.08	3.25	11.99	3.64
Information	8.47	2.30	9.93	2.69	9.29	2.60
Legitimate	11.63	3.09	11.66	2.53	11.48	2.39
Referent	7.68	3.23	7.22	3.53	7.25	3.41
Reward	8.74	2.33	9.27	2.37	9.35	2.03

$F(12,592) = 0.99$ $p = 0.4561$

Age of subordinate personnel. In this analysis, it is determined that significant differences exist among the different groups of subordinates in their perception of their superintendents power bases. The ANOVA F-values (Table 4-9) indicate that significant difference exist among the three age groups for the legitimate and referent power bases.

The post-hoc analysis, as presented in Table 4-10, reveals that for the legitimate power base the perception of subordinate personnel in the age category 36-45 is significantly different from those subordinate personnel in the age category 46-60. Those in the 20-35 age category also produce a mean rating which is very comparable to the 36-45 age category but the

difference is not statistically significant when compared to the age category 36-45. In both the 20-35 and 36-45 age categories there is a lower rating for the legitimate power base of the superintendents. They attribute less influence of the superintendent to the legitimate power base than those subordinates in the 46-60 age category.

For the referent power base, subordinate personnel in the age categories 20-35 and 36-45 have mean ratings which are significantly higher than those ratings for subordinate personnel in the 45-60 age category. They give a higher rating for the referent power than subordinate personnel in the 45-60 age category. There is no significant difference between those in the 20-35 and the 36-45 age categories.

An analysis of the descriptive data reveals that subordinate personnel in the age categories 20-35 and 36-45 assign the highest ratings to the expert power base. Legitimate power receives the second highest rating. For the 46-60 age category, legitimate power receives the highest rating followed by expert power. The highest rating for the coercive power base is given by subordinate personnel in the older category. Subordinate personnel in the 46-60 age category appear to attach more value to information power of the superintendent since they rate it as the third most used power base. For the 20-35 and 36-45 age categories, reward power receives the third highest rating, while information power is ranked fourth.

Table 4-9. Perception of superintendents' power bases as perceived by subordinate personnel of various age categories

Dep Var	20 to 35 yrs		36 to 45 yrs		46 to 60 yrs		F value
	N = 42		N = 163		N = 99		
	M	SD	M	SD	M	SD	
Coercive	6.95	3.09	6.61	3.18	7.19	3.77	0.93
Connection	6.38	3.00	6.68	3.06	6.52	3.04	0.21
Expert	12.14	3.04	12.09	3.27	11.92	4.04	0.09
Information	8.71	2.42	9.34	2.59	9.85	2.72	2.94
Legitimate	11.26	2.54	11.29	2.54	12.07	2.27	3.44*
Referent	8.17	3.06	7.52	3.47	6.48	3.36	4.57*
Reward	9.38	1.95	9.46	2.45	8.97	2.05	1.66

$F(12,592) = 1.95 \quad p = 0.0261$

*Significant at the 0.05 level of significance.

Table 4-10. Post-hoc analysis of the legitimate and referent power base for subordinate personnel of different age categories

	Age Categories	1	2	3
Legitimate	20 to 35 yrs(1)	--	0.9504	0.0746
	36 to 45 yrs(2)	--	--	0.0129*
	46 to 60 yrs(3)	--	--	--
Referent	20 to 35 yrs(1)		0.2668	0.0073*
	36 to 45 yrs(2)	--	--	0.0174*
	46 to 60 yrs(3)	--	--	--

* Significant at the 0.05 level of significance

Age of the superintendent. For analysis of the data collected from three groups of school district personnel, the data are subdivided according to the age of the superintendent on whom the perceptions are based. It is determined that significant differences do exist among the different age categories of superintendents at the 0.05 level of significance. Differences exist among the perceptions of subordinate personnel for superintendents in the three age categories of 36-45, 46-50 and 51-60. The ANOVA F-values (Table 4-11) indicate that significant differences do exist among the three age groups of superintendents for expert, information and legitimate power bases.

A post-hoc analysis of the three significant power bases is presented in Table 4-12. The 36-45 age category, which includes the youngest superintendents, is considered to have the greatest amount of expert power and is significantly different from the expert power of superintendents in the age category 46-50. The difference between the age categories 36-45 and 51-60 is not statistically significant.

Table 4-11. Subordinate's perception of superintendents' power bases categorized by age of the superintendent

Dep Var	36 to 45 yrs		46 to 50 yrs		51 to 60 yrs		F value
	M	SD	M	SD	M	SD	
Coercive	6.38	3.50	7.18	3.39	6.69	3.22	1.57
Connection	6.31	3.26	6.69	3.04	6.84	2.80	0.64
Expert	12.61	3.20	11.47	3.80	12.35	3.09	3.33*
Information	8.79	2.65	9.66	2.54	9.75	2.60	3.62*
Legitimate	11.64	2.55	11.82	2.44	10.69	2.18	5.21*
Referent	7.60	3.42	6.97	3.44	7.66	3.32	1.35
Reward	9.65	2.21	9.21	2.13	9.01	2.06	1.89

$F(12,592) = 1.95$ $p = 0.0261$

*Significant at the 0.05 level of significance.

For information power the mean rating increases with the age category of the superintendents. Those superintendents in the age category 46-50 and 51-60 have ratings for information power that are significantly different from the rating received by those superintendents in the 36-45 age category. There is no significant difference between the 46-50, and 51-60 age groups.

Superintendents in the 36-45 and 46-50 age categories are perceived by subordinate personnel to make greater use of

legitimate power. The lower rating for the 51-60 age category is statistically significant when compared to the mean rating of those superintendents in the age categories 36-45 and 46-50.

Table 4-12. Post-hoc analysis for expert, information and legitimate power bases for superintendents of different age groups

	Age category	1	2	3
Expert	36 to 45 yrs(1)	----	0.0170*	0.6395
	46 to 50 yrs(2)	----	----	0.0860
	51 to 60 yrs(3)	----	----	----
Information	36 to 45 yrs(1)	----	0.0158*	0.0241*
	46 to 50 yrs(2)	----	----	0.8122
	51 to 60 yrs(3)	----	----	----
Legitimate	36 to 45 yrs(1)	----	0.5897	0.0164*
	46 to 50 yrs(2)	----	----	0.0017*
	51 to 60 yrs(3)	----	----	----

* significant at the 0.05 level of significance.

In addition to the differences in power bases which are statistically significant, an analysis of the descriptive data reveals that in this particular sample, subordinate personnel in the 36-45 age category give the higher ratings for expert and reward power bases. Coercive and legitimate power bases are given the higher ratings by the 46-50 age category, and

connection, information, and referent power are rated highest by subordinate personnel having superintendents in the 51-60 age category.

Gender of subordinate personnel. The analysis by gender can be applied only to subordinate personnel because all school district superintendents are male. In this analysis of the perceived bases of power of school district superintendents, subordinate personnel who give their perception of the power bases include 75 female and 229 male subordinates. The 75 females subordinates consist of six assistant superintendents, 31 program consultants and 38 principals. The male subordinates include 36 assistant superintendents, 71 program consultants and 122 principals.

The analysis of data, as presented in Table 4-13, indicates that the differences in mean rating of males and females subordinates are not statistically significant. Both female and male respondents identify power bases in the exact same order of priority, with minimal differences in the means. While there appears to be a significant difference in the ratings for connection power, the overall MANOVA F-value, which indicates no overall significance, prevents any consideration of the ANOVA values or any subsequent post-hoc analysis.

Table 4-13. Female versus male subordinate's perception of superintendents' power bases

Dep Var	Female		Male		F value
	N = 75		N = 229		
	M	SD	M	SD	
Coercive	6.85	3.19	6.85	3.91	0.00
Connection	6.82	3.09	5.88	2.78	5.49
Expert	11.90	3.47	12.49	3.59	1.65
Information	9.34	2.52	9.67	2.92	0.87
Legitimate	11.44	2.50	11.85	2.39	1.60
Referent	7.35	3.37	7.01	3.60	0.56
Reward	9.31	2.12	9.24	2.25	0.05

$F(6, 297) = 1.51$ $p = 0.1749$

Size of school district. Data focusing on district size are analyzed from two perspectives. The variable most frequently used is enrolment within the school district. An exclusive focus on enrolments, however, ignores the geographical dispersion because one large district could have a large number of schools to serve its entire population, while a more compact district with similar enrolment could have a few large schools. These same variations in number of schools could apply to some of the smaller school districts. Thus, school district size is also considered as a function of the number of schools it serves. In the first analysis (Table 4-14), the

MANOVA indicates that there are significant differences among the means of the seven power bases. An examination of the ANOVA F-values indicates that there are two power bases which have statistically significant differences among their means.

Table 4-14. Subordinate's perception of superintendents' power bases categorized by school district enrolment

Dep Var	< 2500		2500 to 4999		≥ 5000		F value
	N = 89		N = 145		N = 70		
	M	SD	M	SD	M	SD	
Coercive	6.96	3.56	6.81	3.37	6.80	3.18	0.06
Connection	7.30	3.07	6.59	3.07	5.69	2.72	5.72*
Expert	11.53	3.77	12.04	3.40	12.70	3.31	2.21
Information	8.91	2.59	9.61	2.66	9.69	2.53	2.43
Legitimate	11.19	2.33	11.43	2.49	12.20	2.52	3.57*
Referent	7.43	3.50	7.47	3.48	6.66	3.18	1.47
Reward	9.69	2.31	9.06	1.99	9.27	2.21	2.40

$F(12,592) = 2.58 \quad p = 0.0024$

*Significant at the 0.05 level of significance.

The post-hoc analysis for the two significant power bases, connection power and referent power, is provided in Table 4-15. These data indicate that subordinate personnel in boards with enrolments less than 2500, and those between 2500 and 5000 are significantly different in their perception of both

connection and referent power bases when compared to subordinate personnel from school districts having enrolments greater than 5000. Both of these power bases are perceived to be used significantly less by superintendents of larger districts in their interaction with the subordinate personnel.

Table 4-15. Post-hoc analysis for connection and legitimate power bases for personnel categorized by school district enrolment

Student enrolment		1	2	3
Connection	< 2500 (1)	----	0.0762	0.0008*
	2500 to 4999 (2)	----	----	0.0396*
	<= 5000 (3)	----	----	----
Legitimate	< 2500 (1)	----	0.4618	0.0105*
	2500 to 4999 (2)	----	----	0.0329*
	<=5000 (3)	----	----	----

* significant at the 0.05 level of significance.

In the second analysis dealing with size of school districts, the MANOVA analysis (Table 4-16) once again reveals that there are significant differences among the seven power bases. When subordinate personnel are classified by the number of schools in the districts, there are differences among their perceptions of the extent to which their superintendents use the available power bases. The ANOVA analysis identifies connection and expert power bases as the major source of these

differences. Connection power is also one of the two power bases identified in the analysis by size which considered school district enrolment. The other power base in this analysis which is identified as statistically significant is the expert power base as compared to the legitimate power base in the analysis dealing with school board enrolment.

Table 4-16. Subordinates' perception of superintendents' power bases categorized by number of schools in the district

Dep Var	<= 10		11 to 14		15 to 20		>=20		F value
	N = 50		N = 94		N = 69		N = 91		
	M	SD	M	SD	M	SD	M	SD	
Coercive	6.74	3.04	6.55	3.71	7.59	3.43	6.65	3.09	1.50
Connection	7.84	3.20	6.85	3.17	6.61	2.76	5.62	2.74	6.51*
Expert	11.30	3.43	11.99	3.50	11.09	4.02	13.23	2.77	6.26*
Information	9.30	2.64	9.17	2.60	9.96	2.49	9.34	2.73	1.31
Legitimate	11.26	2.28	11.20	2.37	11.86	2.66	11.80	2.51	1.52
Referent	7.38	3.21	7.68	3.55	6.83	3.51	7.12	3.35	0.91
Reward	9.18	1.61	9.55	2.31	9.07	2.28	9.24	2.13	0.76

$F(18, 835) = 2.63$ $p = 0.0002$

*Significant at the 0.05 level of significance.

The post-hoc analysis presented in Table 4-17 provides a comparison of the two significant power bases for the four groups that are defined according to number of schools. As in

the previous analysis on school size, the major differences are associated with the largest school districts. For both the connection and expert power bases, subordinate personnel in school districts having more than 20 schools are significantly different from each of the other three groups. The only other significant difference is between the mean ratings of connection power for districts having 15 to 20 schools and those districts having less than 10 schools. The other five comparisons do not reveal any statistically significant differences among the mean ratings for either connection or expert power. It should also be noted that in both analysis dealing with size of school districts that connection power receives a lower rating in the larger districts. Expert power receives the highest rating regardless of district size.

Table 4-17. Post-hoc analysis for connection and expert power bases for personnel categorized by number of schools in the district

Number of schools		1	2	3	4
Connection	<= 10 (1)	----	0.0573	0.0258*	0.0001*
	11 to 14 (2)	----	----	0.6059	0.0048*
	15 to 20 (3)	----	----	----	0.0364*
	>= 20 (4)	----	----	----	----
Expert	<= 10 (1)	----	0.2500	0.7373	0.0015*
	11 to 15 (2)	----	----	0.0968	0.0141*
	15 to 20 (3)	----	----	----	0.0001*
	>=20 (4)	----	----	----	----

* significant at the 0.05 level of significance.

Distance from central office. In the analysis dealing with this particular variable only data from school principals are analyzed. While there are a few cases where assistant superintendents and program consultants are geographically removed from the superintendent, the norm in the province is for all central office staff to have an office in the same building as the superintendent. In a few cases, principals indicate that the central office is actually attached to their school.

The MANOVA analysis (Table 4-18) indicates that the differences among the means of the three groups are not statistically significant. Principals who are within 10 km, 11 to 50 km, and greater than 50 km have basically the same perceptions of their superintendents' bases of power. An examination of the descriptive statistics indicates that minor differences do exist, even though it is not possible to make generalizations from the data. In this particular case, the 55 principals who indicate that they are less than 10 km from central office give higher ratings for coercive, legitimate and reward power. Those in the 11 to 50 km group give a higher rating for expert and referent power, and those who are more than 50 km from central office give higher ratings for connection and information power.

Table 4-18. Principal's perception of superintendents' power bases categorized by distance from central office

Dep Var	<= 10 km		11 to 50 km		>=50 km	
	N = 55		N = 53		N = 52	
	M	SD	M	SD	M	SD
Coercive	7.42	3.65	6.74	3.33	6.96	3.50
Connection	6.42	3.26	6.17	3.00	6.83	2.88
Expert	11.36	3.62	12.87	2.97	12.19	3.29
Information	9.60	2.56	9.23	2.97	10.17	2.39
Legitimate	12.00	2.53	11.28	2.36	10.83	2.42
Referent	6.71	3.59	7.60	2.96	7.02	3.78
Reward	9.49	2.10	9.11	2.09	9.00	2.04

$F(12, 304) = 1.35$ $p = 0.1841$

Comparison of power bases for Roman Catholic and Integrated superintendents. The MANOVA analysis (Table 4-19) indicates that there are no significant differences between the means of power bases as perceived by subordinate personnel within Roman Catholic School Districts and those perceived by subordinate personnel within the Integrated School Districts. The differences in means are not statistically significant, so no further analysis using inferential statistics is conducted. However, an examination of the data using descriptive statistics provides additional information that may be of

interest. It can be seen that the differences between the means of the power bases are minimal with the largest difference of 0.43 and a minimal difference of 0.09. The Roman Catholic School Boards receive a marginally higher ratings for connection, information, legitimate, and reward power bases. Subordinate personnel from Integrated School Districts give higher ratings for coercive, expert and referent power bases.

Table 4-19. Roman Catholic versus Integrated school districts: subordinates' perception of superintendents' power bases

Dep Var	Roman Catholic		Integrated	
	N = 139		N = 165	
	M	SD	M	SD
Coercive	6.74	3.50	6.94	3.27
Connection	6.80	3.10	6.41	2.99
Expert	11.81	3.62	12.24	3.40
Information	9.47	2.65	9.38	2.61
Legitimate	11.70	2.36	11.41	2.57
Referent	7.07	3.44	7.44	3.41
Reward	9.41	2.18	9.19	2.12

$F(6,297) = 0.81$ $p = 0.5593$

Power bases of career-bound and place-bound superintendents. The MANOVA analysis (Table 4-20) indicates that the differences in means are not statistically significant.

Superintendents who acquire the position from within the school district are not perceived to be significantly different from those who move to the position from another school district. An analysis of the descriptive statistics indicate that the greatest difference occurs for the coercive power base where the career-bound superintendents are perceived to be the more coercive. They also receive the higher ratings for connection, and reward power bases. The place-bound superintendents receive marginally higher ratings for the other four power bases.

Table 4-20. Power bases of career and place-bound superintendents as perceived by subordinate personnel

Dep Var	Career-bound		Place-bound	
	N = 99		N = 194	
	M	SD	M	SD
Coercive	7.55	3.64	6.48	3.21
Connection	6.82	2.81	6.51	3.17
Expert	11.72	3.90	12.15	3.29
Information	9.26	2.70	9.52	2.55
Legitimate	11.34	2.64	11.59	2.35
Referent	6.83	3.34	7.56	3.43
Reward	9.48	2.25	9.19	2.09

$F(6, 286) = 1.76 \quad p = 0.1070$

This categorization of career-bound superintendents only on the basis of their previous position does not take into account that some superintendents have been in their position for such an extended time period that they are now essentially place-bound. How can a superintendent with 20 years experience be considered career-bound, or possess career-bound qualities? While initial attributes may have existed, they may certainly have changed during the superintendents extended tenure with the school district. Thus, a further analysis, as presented in Table 4-21, is completed that only considers career-bound and place-bound superintendents with less than 10 years experience in their current position. Superintendents with more than 10 years experience in their current positions are excluded from the analysis.

The MANOVA analysis reveals that subordinates from those boards with career-bound superintendents who have less than 10 years experience have perceptions of power bases that are statistically significant when compared to place-bound superintendents who have less than 10 years experience. The ANOVA analysis identifies coercive power as the only power base where statistically significant differences exist. In this situation, the career-bound superintendents are perceived to be more coercive than superintendents who are classified as place-bound.

Table 4-21. Power bases of career-bound versus place-bound superintendents (10 yrs or less as superintendent) as perceived by subordinate personnel

Dep Var	Career-bound		Place-bound		F Value
	N = 49		N = 139		
	M	SD	M	SD	
Coercive	7.94	3.31	6.07	3.23	11.96*
Connection	6.47	2.61	6.55	3.07	0.02
Expert	11.82	3.92	12.23	3.41	0.49
Information	8.84	2.68	9.44	2.57	1.94
Legitimate	11.47	2.82	11.79	2.43	0.58
Referent	6.98	3.23	7.50	3.55	0.83
Reward	9.49	1.96	9.42	2.18	0.04

$F(6,181) = 2.54$ $p = 0.0219$

*significant at the 0.05 level of significance

Summary

This quantitative research examines the bases of power of school district superintendents using a modified version of the conceptual framework proposed by French and Raven (1959). It results in an acceptance of two null hypotheses, and a rejection of two null hypotheses. It is concluded that there are no differences among the perception-of-other power profiles, and there are no differences among the three self-

other power profiles. This means that there are no differences in how assistant superintendents, program consultants, and school principals view the power bases of their school district superintendent, and there are no significant differences among the three profiles that are mathematically generated by finding differences between ratings of the superintendent and the mean ratings of subordinate groups.

For the two hypotheses that are rejected, significant differences are found among the three self-perceived power profiles and significant differences are found among the perception-of-other power profiles for a selected number of demographic variables. Superintendents do see themselves using different power bases for different groups of subordinates, but these differences are rather limited. It is determined that differences do exist among the three reference groups for coercive power only. Superintendents give a significantly higher rating for coercive power used in relation to principals than for coercive power used with assistant superintendents and program consultants. No differences are found among the self-perceived power profiles for the other six power bases.

For hypothesis four, it is determined that differences do exist among the subordinates' perceptions of school district superintendents' power bases for a number of demographic

variables. Differences are found among the subordinates' perceptions when grouped according to (1) superintendents' years of experience, (2) age of superintendents, (3) size of school districts, and (4) age of subordinate personnel. No statistically significant differences are found among the power profiles for (1) experience of subordinate personnel, (2) gender of subordinate personnel, (3) distance from central office, and (4) type of school district (Catholic or Integrated). In the comparison of the power bases of school district superintendents who obtained the position from within the board (place-bound) and those who acquired the position on leaving another board (career-bound), no differences are found. However, if subordinate personnel are omitted from the analysis when their superintendent has been in the position for more than 10 years, the MANOVA yields significant differences. Career-bound superintendents with less than 10 years experience are perceived to use power bases that are significantly different when compared to those used by place-bound superintendents. Career-bound superintendents are perceived to be more coercive than the place-bound superintendents.

For the four variables where statistically significant differences are detected, in all cases differences are found for the legitimate power bases. In addition to the legitimate power base, for analysis by age of subordinate personnel

differences are found for the referent power base. For size of school district, differences exist for connection power in addition to the legitimate power base. For age of the superintendent, statistically significant differences are found for three power bases - expert, information and legitimate.

In the analysis based on the descriptive data, a number of general or global observations are possible. Rankings of the seven power bases generally fall into three distinct groupings or clusters with minimal differences within each. The first cluster or grouping, which receives the highest average ratings, consists of expert and legitimate power. The second cluster consists of information and reward power, while the third cluster includes coercive, connection and referent power bases. In the many analyses, average ratings may cause relative ranking within each cluster to vary, but those in cluster one always receive a higher rating than those in cluster two, and each power base in cluster two always receives a higher rating than those in cluster three. Also, the average of the two power bases in cluster one is usually about 25% to 30% higher than the average rating of the two power bases in cluster two while cluster two is usually 25% to 30% higher than those in cluster three. Cluster one is usually double the average rating for cluster three. This implies that subordinate personnel perceive superintendents to make greater

use of expert and legitimate power, followed by information and reward power. The three power bases perceived to be used least by superintendents are coercive, connection and referent. The same clustering holds for superintendents' self-perception of their power bases.

CHAPTER V

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This chapter relates the results of the data analysis presented in Chapter IV with the many findings and views of power that are presented in the comprehensive review of the literature. The discussion, which examines all aspects of the self-perceived power profiles and the perception-of-other power profiles, addresses issues identified in the data analysis. There is also an attempt to offer explanations for the research findings and to examine their implications. Finally, there are specific recommendations for further research.

In this research, four null hypotheses are investigated. Hypothesis one, *no differences exist among the perception-of-other power profiles*, and hypothesis three, *no differences exist among the three self-other power profiles*, are not rejected at the 0.05 level of significance. Hypothesis two, *no differences exist among the three self-perception power profiles*, and hypothesis four, *no differences exist among perception-of-other power profiles when data are classified and analyzed using specific demographic data*, are rejected at the 0.05 level of significance. These general conclusions, however, do not present a comprehensive picture considering

that there are seven dependent variables (coercive, expert connection, information, legitimate, referent, and reward power bases) in each multivariate analysis, and a variety of subdivisions for the ten independent variables (position of the subordinate, chief executive officers' years of experience in their current position, years of experience of subordinates in their current position, age of chief executive officers, age of subordinates, gender of subordinates, size of the school districts, geographical distance between the school principals and central office, type of school district, and career-bound versus place bound superintendents).

Self-Perceived Power Ratings

Hypothesis two which focuses on self-perception power profiles and hypothesis three which deals with self-other power profiles use the self-perceived ratings given by the superintendents in reference to three different subordinate groups - assistant superintendents, program consultants and school principals. In hypothesis three, however, the profiles labelled *self-other* are mathematically generated by using the superintendents' self-perceived ratings and the perception-of other ratings as assigned by the subordinate personnel. The analysis introduces a new approach to analyzing power perceptions, and produces findings that contradict those stated by other researchers. These different results may occur

because this research obtains different self-perceptions from superintendents for each subordinate group. Isele (1987) indicates that powerholders do not always understand the nature of their power because there are differences between self-perceived power and power as perceived by subordinate groups. This new approach recognizes that powerholders may use different power bases with different subordinate groups. By obtaining only one self-perception rating (Isele, 1987; Stotts, 1987) from each powerholder, there is an assumption that each powerholder uses the same power bases to the same extent with each subordinate group.

In this research, there is an attempt to determine if subordinate groups have different perceptions of the power bases of their superintendents, as well as whether the superintendents actually recognize that they use different power bases with assistant superintendents, program consultants and school principals. A MANOVA comparison of perceptions, with self-perceptions being treated as a different group within the perception-of-other data, can determine if differences exist among the different groups. The mathematically generated profiles, however, focus on the differences between self-perception and perception-of-others. The analysis of the self/other power profiles determines whether significant differences exist among these "profiles of differences". While it is possible that the differences referred to in other studies such

as Isele (1987) may exist, this research suggests that these differences may be considered significant only if adjustments are made for any initial differences in perceptions. The existence of statistically significant differences between self-perception ratings and perception-of-other power ratings may not indicate that powerholders do not always understand the nature of their power. As this research indicates, powerholders may indeed recognize that they use different power bases. When different groups are involved, powerholders' self-perceptions should be obtained for each group.

The analysis of the self-ratings relative to the three different subordinate groups indicates that superintendents see themselves as having different emphasis on the seven power bases for each subordinate group. While differences among the power bases are minimal, significant differences at the 0.05 level of significance are found for the coercive power base only. Balderson (1975), in trying to account for the differences between two schools in their perception of the principal's power bases, attempts to provide explanations for these differences. He admits that maybe principals really do use different power bases. Since this research acknowledges that superintendents do use different power bases with different subordinate groups, even though the differences are rather limited, extra credence can be given to the view postulated by Balderson.

It seems reasonable to expect that superintendents may perceive themselves to use similar power bases when interacting with subordinate personnel who work in close proximity. Most interaction would be of a personal nature, and usually observable by other personnel. This may force superintendents to at least try to relate to all subordinates in similar ways. This study supports that assumption since superintendents provide ratings that show identical sequencing for all seven power bases for assistant superintendents and program consultants. For principals, who are dispersed throughout the school district, superintendents give the same sequence for the first five power bases but provide a rating for coercive power that places it above the rating for connection power. This may indicate that superintendents believe that the lack of immediate contact necessitates that they be more specific or direct in their communications. This tends to emphasize the hierarchical nature of the organization and may lead to less tolerance if principals question the wisdom of a particular request. The issue of insubordination is more pronounced. For the operation of an effective educational organization, however, the spirit of cooperation must prevail because, as Muth (1973) indicates, the more coercive the power base, the greater the conflict.

Even though null hypothesis two, dealing with differences among the three self-perception power profiles, is rejected, it must be noted that actual significant differences occur for principals only and for one of the seven power bases (coercive power). This similarity among self-perception ratings for assistant superintendents, program consultants and school principals may be related to the size of the Newfoundland school districts because the limited number of personnel permits superintendents to have frequent interaction with school principals as well as with central office staff. While superintendents use the telephone and written correspondence more frequently in communicating with principals than with central office staff, the frequency of personal contact may compensate for differences that might normally occur in larger school districts where personal interaction is more restricted. The acknowledgement by superintendents of the use of more coercive power is not surprising because they often communicate specific and controversial information to schools through the principal. These more intense and more specific communications, along with the frequency of the messages and the nature of the issues, may create conflict. Superintendents may see the communication as being more coercive because principals may be requested to convey specific directives to teachers. This certainly tends to be the case in collective bargaining issues such as approved leave and allocation of teaching staff.

The MANOVA analysis of self-other power profiles, is a comparison of the self and other power profiles. No statistically significant differences are found even though the self-perception ratings given by superintendents indicate that they use higher coercive power with principals. While superintendents recognize the more extensive use of coercive power with principals, the principals' ratings of the superintendent's coercive power is higher than that of either the assistant superintendents or program consultants. It is clear from the power profiles that there is general agreement among the respondents in this research about the power bases used by superintendents. Giammatteo and Giammatteo (1981) express the view that effective leaders must understand their bases of power, and if that is the case, superintendents employed in the Newfoundland school districts demonstrate this knowledge.

Stimson and Appelbaum (1988) conclude that the most satisfied teachers work under principals who clearly understand their power style. If that conclusion is valid and can be extrapolated to different subordinate-superordinate relationships, then one can conclude that there should be a reasonable amount of job satisfaction among assistant superintendents, school principals, and program consultants. Schulz (1987) indicates that low job satisfaction is significantly related to the use of coercive and connection power. These two power bases receive consistently low

ratings from all three groups of subordinate personnel as well as by superintendents in their self-perception ratings.

Muth (1984) indicates that coercive power tends to create greater conflict. In the research reported here, subordinates recognize legitimate and expert power of the superintendent as the two most prominent power bases. This appears to reduce the need for extensive use of coercive power, and to minimize the potential for conflict. The higher coercive rating for principals may be an indication that there is more conflict between superintendents and principals, than there is between superintendents and subordinate personnel at school district offices. This appears to be a realistic assumption because superintendents are often forced to make decisions or communicate decisions of the school trustees that are not always appreciated. Major issues that tend to be sources of conflict include allocation of staff, funding for instructional materials, disciplinary action, grievance procedures and administration of the collective agreement. Principals also endeavour to gain maximum benefits for their own schools. They strive to obtain maximum financial and human resources even though their views may conflict with the superintendent's view of equitable distribution.

The findings of this research, relating self-perception and perceptions of subordinate personnel, are in general agreement

with those of Hoover (1980) but contradict those of Copes (1982). Hoover finds basic agreement between teacher ratings and principal ratings of power bases. Copes suggests that principals and teachers have different perceptions of the principals' power bases. It should be reiterated, however, that these and other studies identified in this research assume that ratings for each group represent ratings on the same variables, and that the statistical comparison is appropriate. They assume that one general self-rating by the powerholder applies equally to all subordinates regardless of the subordinate group. Furthermore, past research treats self-perception ratings as just another group of data and includes them in one statistical analysis with the perception-of-other data. In that respect, conclusions reached by other researchers may not provide a legitimate comparison for findings of this research.

Perception-of-Other Power Ratings

The major focus of this study and a significant portion of the statistical analysis deals with the power bases of school district superintendents as perceived by three subordinate groups. The initial analysis compares the ratings of three different subordinate groups, but since no significant differences are found, subsequent analyses are reported without specific reference to a particular subordinate group.

The initial finding that no statistically significant difference exist among the three subordinate groups is in contradiction to the findings of Isele (1987). She found significant differences among respondents' perceptions of the superintendent's power bases when analyzed by role in the organization. In this research, there is unquestionable agreement among the three respondent groups. There appears to be more of a collegial model in operation, especially among subordinates who work with the superintendent at school district offices. While principals do give a higher rating for coercive power, their ratings are comparable to those of assistant superintendents and program consultants because the differences that do exist are not statistically significant.

The mean ratings of each power base for the analysis of the three subordinate groups produce rankings that are similar to power rankings reported in other studies. Stimson and Appelbaum (1988) indicate that expert power receives the highest rating, or ranks first in importance. In this research all three subordinate groups rate expert power the highest. Stimson and Appelbaum, however, rank the other six power bases in the order - referent, information and legitimate (tied), reward, connection and coercive. In this research, expert power is followed by legitimate, information, reward, referent, coercive and connection.

It has already been noted that three distinct groups of power bases are evident from the data analysis. Expert and legitimate power form the first group, information, reward and referent compose group two, and coercive and connection fall in group three. This indicates that the real difference between this research and that of Stimson and Appelbaum (1988) is the relative placement of legitimate and referent power bases. One could suspect that the superintendent's proximity or close working relationship with the school trustees who have law-making authority, may enhance subordinates' perception of legitimate power. It could also account for the elevation of information and coercive power, since superintendents would be the primary communication link between school trustees and subordinate personnel. Furthermore, when difficult decisions are made, superintendents are usually given the unpleasant task of implementation. This may create conflict and enhance the rating for coercive power.

Isele (1987), although working with effective school districts, identifies legitimate power and expert power as the two most important power bases of school district chief executive officers, and coercive power as the least important. Her findings are reasonably parallel to the findings of the research reported here, even though this research includes all school districts in which superintendents (chief executive officers) have served for one year or more. This may cause one

to question the findings of Isele who implies that expert and legitimate power bases are the dominant power bases for chief executive officers in effective school districts only. On the other hand, it must be pointed out that data in this research are not analyzed on a district by district basis. If it were possible to identify the more effective school districts, it may be discovered that they do have higher ratings for expert and legitimate power and a lower rating for coercive power.

The research reported here can also be compared with those of Burke and Wilcox (1971) who identify expert power as the most important power base of supervisors as perceived by the telephone operators involved in their research. Stahelski and Frost (1987) indicate that expert power is the predominant power base for leaders in large civil service organization. Bachman and Bowers (1968) find that subordinates identify legitimate and expert power as the most important reasons for complying with organizational superiors, and coercive power as the least likely reason for compliance.

Slocum (1970) concludes that employees perceive expert power to be the predominant power base of powerholders in a steel mill and is strongly correlated with employee satisfaction. He indicates that legitimate power is second most important power base followed by referent and reward power. Coercive power is the least important power base. Information and connection

power are not included in the research. Finally, Morrissey (1988), who uses a sample of chief executive officers of business organizations, finds referent and information power to be the two most important power bases. His findings are significantly different from those of most others studies of power bases, and certainly different than the power bases of superintendents in the Newfoundland educational system. While it is difficult to account for these variations in power bases, it is possible that the differences are related to organizational characteristics and working relationships between subordinates and chief executive officers.

The analysis of perception-of-other power profiles by various demographic variables indicates that there are significant differences among the power bases when data are classified according to experience of superintendents in their current position, age of subordinate personnel, age of superintendents, size of school districts, and career-bound compared to place-bound superintendents. Of the five significant independent variables, four are either a personal characteristic of the superintendent or an organizational characteristic. Age of the subordinate is the only significant independent variable that is a specific characteristic of the power recipient. This certainly appears to indicate that power bases are determined more by personal characteristics of the powerholder.

In the investigation focusing on the experience of superintendents, it is determined that they are perceived to have significantly less legitimate power with increased tenure in their positions. Since only one power base is statistically significant, the ratings normally attributed to legitimate power are distributed among the other six power bases. The older superintendents have the higher ratings for connection, information and referent power bases. It appears that these older superintendents no longer need the support of the organization through the legitimate base because their extended network gives them greater control over the flow of information. They usually develop a chain of contacts that subordinates, or aspiring individuals within the organization wish to access. It must be noted, however, that even though connection, information and referent power bases are rated higher, the differences in ratings are not statistically significant, so the conclusions are, at best, conjectures.

When data are classified by age of superintendents, there are three bases that are statistically significant. As with experience, since those in the 20 year experience category are probably a subset of those in the 51-60 age category, the legitimate power base has a rating lower than the other two categories. In this case, however, there are also significant differences for information power. The rating of information power increases with the age of superintendents to the extent

that those in the 46-50, and 51-60 age categories have a statistically higher rating than the younger superintendents. These younger superintendents receive the highest rating for expert power, probably because they would be seen to have the necessary academic qualifications, and probably without exception, have proven their capabilities in previous positions. As chief executive officers, the most political position in the educational system, they have to make more decisions that may be somewhat controversial. When subordinates question the wisdom of a decision, they essentially question the expertise or ability of the superintendent to offer proper advice to the school trustees. Those in the 46-50 age category also have a lower rating for expert power and referent power but a higher rating for coercive power. The older superintendents appear to be attributed with expertise and referent power.

The higher rating for information power implies that the access to information and the manner in which superintendents use it to influence and direct subordinates may require years of experience in educational administration. The older superintendents, who are the more experienced educators, probably have more formal and informal contact from whom they may obtain information that is valued by their subordinates. This may account for the increased rating for information power.

The other statistically significant variable which is a characteristic of superintendents is the categorization of place-bound and career-bound. This designation was used by Carlson (1967). He defines place-bound superintendents as those who acquire the position from within the organization. While place-bound individuals aspire to the superintendency, they are not prepared to seek the opportunity and challenge at the expense of having to move to another school district. As for career-bound superintendents, they are continuously seeking new challenges and do not hesitate to acquire the position from outside the organization. They are generally considered change-agents, and are not intimidated by resistance of employees who want to maintain the status quo.

In this research, significant differences are found among superintendents categorized by place-bound or career-bound provided they have experience of 10 years or less. The career-bound superintendents are found to have a significantly higher rating for coercive power. It was also discovered that if superintendents with more than 10 years experience are included in their respective categories, the differences are no longer significant. This possibly indicates that over the years a socialization process occurs (Miklos, 1988) and the initial euphoria for change dissipates. Superintendents become fully integrated into the community and the organization. The

place-bound superintendents receive marginally higher ratings for five power bases (connection, expert, information, legitimate and referent), but these differences are not statistically significant. The greatest difference occurs for information power which is approximately 7% higher.

Among the demographic variables involving characteristics of the subordinate respondents, only one variable produces statistically significant differences among the power bases. The older respondents give a significantly higher rating for the superintendent's legitimate power and a significantly lower rating for referent power. This may indicate that older respondents believe that the power bases of the superintendent are more organizationally based rather than a personal characteristic of the superintendent. This is not surprising since many of the older subordinate respondents have spent considerable time in the district and probably see themselves as equally capable of fulfilling the superintendent's responsibilities. They realize that as a chief executive officer, a superintendent has the authority to demand compliance regardless of how individuals feel about a decision.

The recognition of the superintendent's legitimate power, which is considered to evolve from the organization, probably explains why personal power bases receive a lower rating. In

this situation, referent power which is a personal power base, is given a significantly lower rating. Those subordinates in the youngest of the three age categories give the highest rating for referent power. This could be seen as an acknowledgement of respect gained through the many years of experience, and a general feeling that these years must have been successful. Superintendents usually reach the highest level of their school districts because of a distinguished career in education so they gain more respect from subordinates who are at the initial stages of their educational careers.

The final significant variable in the analysis of subordinates' perceptions of their superintendents' power bases is the size of the school district. In the classification of districts by number of schools and school district enrolments, statistically significant differences exist among the power bases. In both classifications, differences among categories for connection power are statistically significant. The larger the school district enrolment, the lower the rating for connection power. This may be related to greater access of the superintendent to subordinates in district with smaller enrolments. Subordinates have more personal contact so they more likely to be afforded the opportunity to use the available connections for personal gains. In larger organizations there are fewer opportunities

for interaction and fewer opportunities for subordinates to access connections that may be to their advantage.

The two other power bases of superintendents that are statistically significant when data are classified by district size are expert and legitimate. These two power bases are consistently rated as the most important power bases for all variables. For classification of size based on district enrolment, legitimate power is statistically significant. For the classification of size based on number of schools, the expert power base is statistically significant. In each case, subordinates in the largest school districts assign ratings that are statistically significant when compared to the other categories. No differences exist among the other categories of district size.

In the classification by enrolment, superintendents of the largest districts receive the highest rating for expert power just as they do in the classification by number of school. The differences, however, among expert power for the different categories based on district enrolment, are not statistically significant. Nevertheless, the higher ratings for expert power seem to indicate that while there may be an organizational component to the power base of the superintendent, there is also a personal component. The appointment of an individual to

the position of chief executive officer of a large school district is generally a recognition of personal and professional capabilities and achievements. Simultaneously, a large organization tends to give the superintendent a feeling of more authority or legitimate power in dealing with subordinates and a more elevated stature in dealing with other professionals and educational agencies. The relative power may be enhanced because these superintendents serve a larger number of stakeholders.

A number of demographic variables that are significant in other studies of power do not yield statistically significant differences among the seven power bases in this research. No significant differences among subordinate's perception of the power bases of superintendents are found when data are analyzed for various categories based on gender of subordinate personnel, type of school district, distance of subordinate personnel from central office, experience of subordinate personnel, and experience of subordinates with the school district.

Isele (1987) and Bennett (1988) indicate that the gender of the respondent is a significant variable in the perception of power. Hunsaker (1988), Johnson (1976), and Wiley and Eskilson (1982) identify gender as an issue in power relations, but

they examine it in relation to the gender of the powerholder. In this research, all superintendents are male so no comparison by gender of the powerholder is possible. In contrast to the research which identifies gender as a significant variable, Ragins (1989) indicates that there are no differences between male and female managers. Thus, the issue of gender may require further investigation, especially from the power recipient's perspective.

It is conceivable that in the Newfoundland education system, dominated by males at both the management and consultant levels, the few females who receive promotions feel some subtle pressure to conform to a culture that is still characterized by male dominance. Real change may occur when there is a more equitable distribution of males and females in administrative and consultative positions. Statistics released by the Department of Education for 1990 indicate that while approximately 65% of classroom teachers are female, only 20% of assistant superintendents, program consultants and principals are females. There are no female superintendents.

One of the unique characteristics of the Newfoundland educational system is its denominational structure. The church plays a very dominant role and consequently tends to have considerable influence where major issues are involved. It is

felt that this involvement of the church could account for some possible variances among power bases. The statistical analysis, however, indicates that no differences exist among the power bases when respondents ratings are categorized by type of school board. This may indicate that respondents see a distinction between the influence of the church and the power bases of their chief executive officer, and do not necessarily equate the religious component and the responsibilities of the chief administrator. The differences that do exist in actual ratings are superficial, but it may be worth noting that for the Catholic boards the organizational power bases generally have the higher ratings - connection, information, legitimate and reward. Superintendents from the Integrated boards have the higher ratings for the personal power bases - expert, referent and coercive. It is even conceivable that the coercive actions of the superintendents of Catholic boards are deflected to the Church, or even misinterpreted by respondents as evidence of the legitimate power base.

The nature of the power bases indicates that the personal dimensions of power would generally have higher ratings if there is more frequent interpersonal contact between superintendent and subordinates. A positive rapport would increase the ratings for referent power, but frequent or prolonged presence could result in a more coercive rating.

Superintendents who convey decisions, however, without personal contact with subordinates but yet have frequent contact with school trustees, would probably receive higher ratings for organizational power bases. Based on these conjectures, it is anticipated that distance of subordinate personnel from central office might be a significant variable. The analysis indicates that there are no significant differences even though those respondents closer to central office do give superintendents a higher power rating for coercive power. They also receive the highest rating for legitimate and reward power, the organizational power bases. Superintendents, with an office more than 50 km from principals, receive the highest ratings for connection and information power.

The experience of subordinate personnel is examined from two perspectives with regard to possible significant differences among perceptions of power ratings. Abdalla (1987) indicates that subordinates' years of work experience have a significant effect on position-organization and reward-punishment power bases. In this study, no overall significant differences are found for either the years of experience of subordinates in their current position or total experience of subordinates with their school districts. This difference from the Abdalla study may be attributed to the nature of the organizations

involved. In this research, most teachers have a similar level of education and possess professional expertise in their own area of competencies, and do not have major differences in their perception of the power bases of their superintendent. The Abdalla study examines power bases of middle management Arab personnel from a wide variety of organizations. He acknowledges that the educational level is relatively low which is in direct contrast to this study where the educational level is relatively high. No respondent in this research has less than four years of university education.

Recommendations for Future Research

Despite the many studies involving power, there are still many aspects which require further or additional investigation. This study is one of very few that examines the power bases of school district chief executive officers. Furthermore, there is minimal research that attempts to determine how specific demographic variables are possibly related to the specific power bases used by a powerholder. All aspects of power must be understood and properly researched if the power concept is to find its appropriate place in the management literature. As a result of this research, recommendations for further research are as follows:

(1) A similar study should be conducted to examine the power bases of school district superintendents in other Canadian jurisdictions. While this research has findings that conflict with those of others studies, these differences may be related to specific characteristics of the Newfoundland educational system such as the denominational structure, the unique approach to data analysis such as the self/other power profiles, or even specific characteristics incorporated into other research initiatives such as the effective school aspect of the Isele (1987) study.

(2) The respondents in the sample who complete the perception-of-other power profile should be extended to include other subordinate personnel such as vice-principals, department heads, and classroom teachers. All subordinate personnel involved in this study have extensive interaction with their chief executive officer.

(3) A study involving a district by district analysis is suggested. This, however, is possible only if there are sufficient respondents from each district, and provided superintendents and subordinates, with the full assurance of confidentiality, are willing to participate in the research. This would provide a more comprehensive research on the personal dimension of power.

(4) Investigation of power bases should be examined from a qualitative perspective. More specific information may be obtained from superintendents and respondents through personal interviews.

(5) The independent variables should be extended from selected demographic variables to include specific environmental factors. For example, would a recent school closure, contract dispute, or layoff of personnel because of declining enrolment affect the perceived power bases.

(6) This study has investigated the nature of power utilized by school superintendents, but it does not determine the extent of that power. Future research should attempt to ascertain a comparative or relative measure of power.

(7) An examination of power should also include respondents such as school trustees who, at least collectively, have legitimate authority to direct their chief executive officer.

(8) Future studies of the power bases involving school districts should include both genders so that the power bases of male and female chief executive officers can be compared.

Summary

This research on power is based on the conceptual framework of power bases formulated by French and Raven (1959). Their five bases of power are supplemented by two additional power bases which include information power as defined by Raven and Kruglanski (1970) and connection power as identified by Hersey, Blanchard and Nagemeyer (1979).

Data for the various statistical analyses are obtained by using three questionnaires - perception-of-other power profile, perception-of-self power profile and a supplementary demographic questionnaire. The perception-of-other power profile is completed by the assistant superintendents, program consultants, and school principals from 23 school districts in the Province of Newfoundland and Labrador. The perception-of-self power profile is completed by 22 superintendents, while all the respondents complete a supplementary demographic questionnaire.

The primary intent of the research is an exploratory investigation of the power bases of chief executive officers of school districts. Power is treated as a dependent variable, while the independent variables include the different types of personnel involved and a wide variety of demographic variables.

The specific findings of the research include the following:

(1) No statistically significant differences are found among assistant superintendents, program consultants, and school principals in their perceptions of the bases of power of their school district superintendent.

(2) Statistically significant differences are found among the three self-perceived power bases. Superintendents perceive themselves to use significantly more coercive power in their working relationships with school principals.

(3) No statistically significant differences are found among the self/other power profiles. This indicates general agreement among the perception-of-other and perception-of-self power profiles.

(4) Statistically significant differences are found for the perception-of-other power profiles when data are classified according to superintendents' years of experience in their current positions. The more experienced superintendents receive a significantly lower rating for the legitimate power base.

(5) Statistically significant differences are found for the perception-of-other power profiles when data are classified according to the age of superintendents. Significant differences are found for expert, information and legitimate power bases. The youngest category of superintendents receive a significantly lower rating for the information power base, the older category of superintendents receive a significantly lower rating for the legitimate power base, and the medium age group in comparison to the younger superintendents receive a significantly lower rating for expert power.

(6) Statistically significant differences are found for the perception-of-other power profiles when data are classified according to the size of the school district. When categorized by enrolment, significant differences are found for connection and legitimate power bases. When classified by number of schools, significant differences are found for connection and expert power. Superintendents in the larger districts are perceived to use significantly less connection power. For classification by enrolment, superintendents in larger districts are perceived to use significantly more legitimate power. In the classification by number of schools, superintendents in larger districts are perceived to use significantly more expert power.

(7) Statistically significant differences are found for the perception-of-other power profiles when data are classified according to the age of subordinate personnel. Significant differences are found for legitimate and referent power bases. The oldest subordinate personnel perceive superintendents to use significantly more legitimate power and significantly less referent power.

(8) Statistically significant differences are found for the perceived power bases of the career-bound and the place-bound superintendents who have 10 years or less experience. The career-bound superintendents are found to use significantly more coercive power. When those superintendents with more than 10 years of experience are included in the data analysis, the differences are no longer statistically significant.

(9) No statistically significant differences are found when data are classified according to experience of subordinate personnel, gender of subordinate personnel, distance from central office, and type of school district (Catholic or Integrated).

(10) In all the analyses, three distinct clusters or groupings of power bases are evident. Expert and legitimate power bases always receive higher ratings than the other five power bases; the three intermediate bases are information, referent and reward power; and the two bases receiving the lowest ratings are coercive and connection power.

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Appendix A: Request for permission to use Hersey and
Natemeyer (1979) *Power Perception Profile* instruments

University of Ottawa
Lamoureux Bldg., Rm. 333
Ottawa, Ontario
K1N 6N5
September 20, 1989

Ms Aileen Edillon
Center for Leadership Studies
230 West Third Avenue
Escondido, California
92025

Dear Ms Edillon:

As indicated in our telephone conversation of September 20, 1989, I am requesting permission to use modified versions of the Power Perception Profiles - Perception of Self and Perception of Other developed by Hersey and Nateymer (1979).

I am a Ph. D. student at the University of Ottawa under the supervision of Dr. Harold Jakes. The proposed research is an investigation of the power bases of school district chief executive officers in the Province of Newfoundland and Labrador, Canada. Three versions of the Self-perception Profile will be used to determine if chief executive officers use different power bases with different groups of subordinates. These three groups of subordinates will also be requested to complete an instrument to give their perception of the chief executive officers power bases.

As a graduate student who has already devoted considerable time with financial sacrifices to develop a research proposal, your favourable response to this request will be greatly appreciated.

Copies of the modified instruments which have been designed for the proposed study are enclosed.

Yours Sincerely,

Willis C. Jacobs

Appendix B: Permission from Leadership Studies to use
Power Perception Profile instruments



LEADERSHIP
STUDIES

October 2, 1989

230 W. THIRD AVE.
ESCONDIDO,
CALIFORNIA
92025-4180

619/741-6595

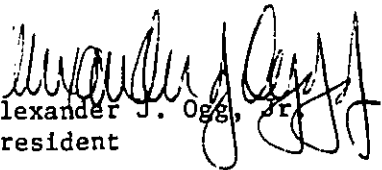
Mr. Willis C. Jacobs
Graduate Student
UNIVERSITY OF OTTAWA
Lamoureux Building, Room 333
Ottawa, Ontario K1N 6N5
CANADA

Dear Mr. Jacobs:

Thank you for your interest in our organization.

You have permission from Leadership Studies to use the Power Perception Profile instruments for research purposes. However, since they are copyrighted, no reworking or duplication is allowed. It may be acquired through the established process of purchase from University Associates. A Resource Guide is enclosed for your review.

Sincerely,


Alexander J. Ogg, Jr.
President

AJO/aae

Enclosure

Appendix C: Letter of purchase for *Power Perception*
Profile instruments

P.O. Box 82, LMX Hall
University of Ottawa
Ottawa, Ontario
October 13, 1989

University Associates of Canada, Inc.
4190 Fairview Street
Burlington, Ontario
L7L 4Y8

Dear Sir:

In a letter dated October 2, 1989, permission was obtained from Leadership Studies to use the Hersey and Natemeyer (1979) Power Perception Profiles for research purposes. I now request the special price which is available to universities who purchase instruments for classroom and research purposes. The planned research investigates the bases of power of school district chief executive officers as perceived by self and others. For this research, the number of instruments required is

25 copies of the Power Perception Profile-Perception of Self
and

400 copies of Power Perception Profile-Perception of Other

Please forward instruments with invoice to the above address.

If further information is required, you may contact me at (613) 564-4097, or the research supervisor, Dr. Harold Jakes at (613) 564-7725.

Sincerely,

Willis C. Jacobs
Ph.D. Student

Dr. H. Jakes
Research Supervisor

Appendix D: Letter to school district chief executive officers requesting permission to conduct study, and a sample reply

P. O. Box 82, LMX Hall
University of Ottawa
Ottawa, Ontario
K1N 6N5
October 10, 1989

Dear Sir:

I am completing my Ph. D. in educational administration at the University of Ottawa. In my research, under the supervision of Dr. Harold Jakes, I am investigating how chief executive officers (CEOs) in Newfoundland and Labrador relate to subordinates. More specifically, the study examines how CEOs use available power bases to influence and direct assistant superintendents, program coordinators, and school principals.

I would like your district to participate in the study. If approval is granted, you will be asked to complete a brief questionnaire which assesses how you view your use of available power bases. In addition, a sample of subordinate personnel who have worked under your leadership for at least one year will be asked to complete a similar instrument.

Should you agree to participate in the research, your assistance in updating the attached list of personnel obtained from the 1988-89 *School Directory* would be appreciated. Please, ensure that all central office personnel and principals who have worked under your leadership for at least one year are included. I would also like you to know that all data will be held in strictest confidence and that the analysis of data will assure complete anonymity of all respondents.

If my research is going to truly represent Newfoundland and Labrador, I need your assistance. A response, at your earliest convenience would be greatly appreciated so that questionnaires may be distributed before the end of November.

Thank you for your cooperation and support. If further information is required, I may be reached at (613) 564-4097.

Sincerely,

Willis C. Jacobs
Assistant Superintendent (on leave)
Cape Freels Integrated

October 31, 1989

Mr. Willis C. Jacobs
P.O.Box 82, LMX Hall
University of Ottawa
Ottawa, Ontario
K1N 6N5

Dear Mr. Jacobs:

This letter grants permission for you to conduct research in this district by way of the means outlined in your letter of October 10, 1989. All principals except those marked with an asterisk have served with the district for at least one year; all others are either in their first year or no longer in the position as listed.

Please advise if I may be of further assistance. I wish you every success in your research.

Yours truly,

District Superintendent

gs

Appendix E: Request to school district chief executive
officers to complete instruments

P. O Box 127
Wesleyville, Newfoundland
A0G 4R0
October 20, 1989

Dear :

Thank you for allowing me to conduct research in your school district.

I realize that you have a very busy schedule, but I would really appreciate about a half-hour of your time. Since the number of superintendents is limited, your full cooperation will be greatly appreciated. My research depends on your assistance.

The data collection instruments consist of a *Supplementary Questionnaire*, to collect necessary demographic data, and a *Power Perception Profile - Perception of Self*. For the power base instrument, you are requested to respond to each item in respect to assistant superintendents, program coordinators and principals. In other words, go through the instrument three times, thinking of one group at a time. Place your response for each item on the three answer sheets provided - one for each group of subordinates. Please respond to each group without referring to a previous response.

I realize that my request imposes a demand of extra time. However, the research focus makes its necessary to rate power bases in relationship to a specific subordinate group. Preferably, you should give your responses on three separate occasions to ensure that one score is not affected by a previous response. Please complete all items and return questionnaires in the prestamped envelope provided.

No individual or board will be identified in the presentation of data. Information is strictly confidential and complete anonymity for all superintendents is assured.

In anticipation of your full support, I do thank you for taking your valuable time to assist me with my research.

Sincerely,

Willis C. Jacobs
Assistant Superintendent (on leave)
Cape Freels Integrated

Appendix F: Request to assistant superintendents, program consultants, and school principals to complete instruments

P. O. Box 127
Wesleyville, NF
A7G 4R0
October 23, 1989

Dear :

I am completing my Ph. D. in educational administration at the University of Ottawa. Recently, I received permission from your superintendent to contact you and solicit your support for my research.

I realize that you have a very busy schedule, but I would really appreciate about 15 minutes of your time. My research depends on your cooperation.

The research focuses on the power bases of school district superintendents in Newfoundland and Labrador. You are requested to complete the enclosed *Power Profile Instrument* and the *Supplementary Questionnaire*. The power profile instrument is designed to identify the extent to which your superintendent uses particular bases of power, while the supplementary questionnaire provides some necessary demographic data. Please complete all items.

Please return the *Power Perception Profile* and *Supplementary Questionnaire* as soon as possible in the prestamped envelope provided. Remember, you are giving your perception of your superintendent's power bases, based on your own personal experiences. Do not be concerned with matching your response on any power base throughout the questionnaire. For example, ratings for A will depend on the other base with which it is compared. Different ratings at different times throughout the instrument do not imply contradictions.

I can assure you that no individual or board will be identified in the presentation of data. Information is strictly confidential and complete anonymity of respondents is guaranteed.

In anticipation of your full support, I do thank you for taking a few minutes of your valuable time to assist me with my research.

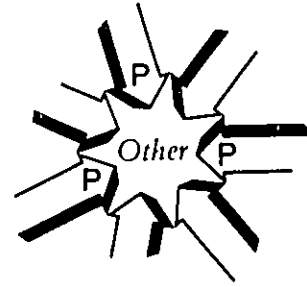
Sincerely,

Willis C. Jacobs
Assistant Superintendent (on leave)
Cape Freels Integrated

Appendix G: Supplementary questionnaire for demographic data

Appendix H: Power Perception Profile instruments
(copyright instruments, all right reserved

POWER PERCEPTION PROFILE — PERCEPTION OF OTHER



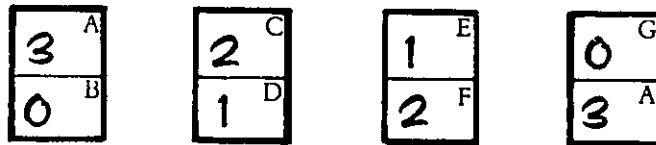
This instrument is designed to provide some important information about this person's utilization of various types of power as the basis of leadership attempts.

PART I: INSTRUCTIONS

Listed below are 21 pairs of reasons often given by people when they are asked why they do the things the leader suggests or wants them to do.

Allocate 3 points between the two alternative choices in each pair. Base your judgment on the relative importance of each alternative. This is in reference to your perception of why you comply with this leader.

Allocate the points between the first item and the second item based on perceived importance in the following fashion:



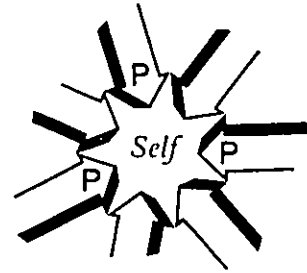
Be sure that the numbers assigned to each pair add up to 3.

I Respond to This Leader's Influence Attempts Because:

1.	A	This person can administer sanctions and punishment to those who do not cooperate.
	B	I realize that this person has connections with influential and important persons.
2.	C	I respect this person's understanding, knowledge, judgment, and experience.
	D	This person possesses or has access to information that is valuable to others.
3.	E	This person's position in the organization provides the authority to direct my work activities.
	F	I like this person and want to do things that will please.
4.	G	This person can provide rewards and support to those who cooperate.
	A	This person can administer sanctions and punishment to those who do not cooperate.
5.	B	I realize that this person has connections with influential and important persons.
	C	I respect this person's understanding, knowledge, judgment, and experience.
6.	D	This person possesses or has access to information that is valuable to others.
	E	This person's position in the organization provides the authority to direct my work activities.
7.	F	I like this person and want to do things that will please.
	G	This person can provide rewards and support to those who cooperate.

8.	A	This person can administer sanctions and punishment to those who do not cooperate.
	C	I respect this person's understanding, knowledge, judgment, and experience.
9.	B	I realize that this person has connections with influential and important persons.
	D	This person possesses or has access to information that is valuable to others.
10.	C	I respect this person's understanding, knowledge, judgment, and experience.
	E	This person's position in the organization provides the authority to direct my work activities.
11.	D	This person possesses or has access to information that is valuable to others.
	A	This person can administer sanctions and punishment to those who do not cooperate.
12.	E	This person's position in the organization provides the authority to direct my work activities.
	B	I realize that this person has connections with influential and important persons.
13.	F	I like this person and want to do things that will please.
	C	I respect this person's understanding, knowledge, judgment, and experience.
14.	G	This person can provide rewards and support to those who cooperate.
	B	I realize that this person has connections with influential and important persons.
15.	A	This person can administer sanctions and punishment to those who do not cooperate.
	E	This person's position in the organization provides the authority to direct my work activities.
16.	B	I realize that this person has connections with influential and important persons.
	F	I like this person and want to do things that will please.
17.	C	I respect this person's understanding, knowledge, judgment, and experience.
	G	This person can provide rewards and support to those who cooperate.
18.	D	This person possesses or has access to information that is valuable to others.
	F	I like this person and want to do things that will please.
19.	E	This person's position in the organization provides the authority to direct my work activities.
	G	This person can provide rewards and support to those who cooperate.
20.	F	I like this person and want to do things that will please.
	A	This person can administer sanctions and punishment to those who do not cooperate.
21.	G	This person can provide rewards and support to those who cooperate.
	D	This person possesses or has access to information that is valuable to others.

POWER PERCEPTION PROFILE — PERCEPTION OF SELF



Developed by Paul Hersey and Walter E. Natemeyer

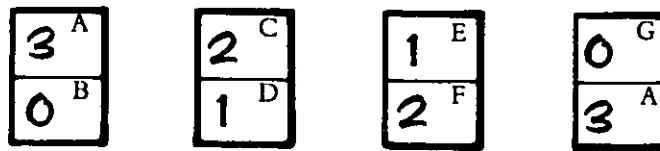
This instrument is designed to provide you with some important information about utilization of various types of power as the basis of your leadership attempts.

PART I: INSTRUCTIONS

Listed below are 21 pairs of reasons often given by people when they are asked why they do the things the leader suggests or wants them to do.

Allocate 3 points between the two alternative reasons in each pair. Base your point allocation on your judgment of each alternative's relative importance as a reason for others' compliance to you.

Allocate the points between the first item and the second item based on perceived importance in the following fashion:



Be sure that the numbers assigned to each pair add up to 3.

Others Respond to My Leadership Attempts Because:

1.	A	I can administer sanctions and punishment to those who do not cooperate with me.
	B	They realize that I have connections with influential and important persons.
2.	C	They respect my understanding, knowledge, judgment, and experience.
	D	I possess or have access to information that is valuable to others.
3.	E	My position in the organization provides me with the authority to direct their work activities.
	F	They like me personally and want to do things that will please me.
4.	G	I can provide rewards and support to those who cooperate with me.
	A	I can administer sanctions and punishment to those who do not cooperate with me.
5.	B	They realize that I have connections with influential and important persons.
	C	They respect my understanding, knowledge, judgment, and experience.
6.	D	I possess or have access to information that is valuable to others.
	E	My position in the organization provides me with the authority to direct their work activities.
7.	F	They like me personally and want to do things that will please me.
	G	I can provide rewards and support to those who cooperate with me.

8.	A	I can administer sanctions and punishment to those who do not cooperate with me.
	C	They respect my understanding, knowledge, judgment, and experience.
9.	B	They realize that I have connections with influential and important persons.
	D	I possess or have access to information that is valuable to others.
10.	C	They respect my understanding, knowledge, judgment, and experience.
	E	My position in the organization provides me with the authority to direct their work activities.
11.	D	I possess or have access to information that is valuable to others.
	A	I can administer sanctions and punishment to those who do not cooperate with me.
12.	E	My position in the organization provides me with the authority to direct their work activities.
	B	They realize that I have connections with influential and important persons.
13.	F	They like me personally and want to do things that will please me.
	C	They respect my understanding, knowledge, judgment, and experience.
14.	G	I can provide rewards and support to those who cooperate with me.
	B	They realize that I have connections with influential and important persons.
15.	A	I can administer sanctions and punishment to those who do not cooperate with me.
	E	My position in the organization provides me with the authority to direct their work activities.
16.	B	They realize that I have connections with influential and important persons.
	F	They like me personally and want to do things that will please me.
17.	C	They respect my understanding, knowledge, judgment, and experience.
	G	I can provide rewards and support to those who cooperate with me.
18.	D	I possess or have access to information that is valuable to others.
	F	They like me personally and want to do things that will please me.
19.	E	My position in the organization provides me with the authority to direct their work activities.
	G	I can provide rewards and support to those who cooperate with me.
20.	F	They like me personally and want to do things that will please me.
	A	I can administer sanctions and punishment to those who do not cooperate with me.
21.	G	I can provide rewards and support to those who cooperate with me.
	D	I possess or have access to information that is valuable to others.