A study of the relationship between principals' extent of participation in budgeting, locus-of-control, and job satisfaction

Harold Louis Cothern
College of William & Mary - School of Education

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A study of the relationship between principals' extent of participation in budgeting, locus-of-control, and job satisfaction

Cothern, Harold Louis, Ed.D.
The College of William and Mary, 1990

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A STUDY OF THE RELATIONSHIP BETWEEN PRINCIPALS' EXTENT OF PARTICIPATION IN BUDGETING, LOCUS OF CONTROL, AND JOB SATISFACTION

A Dissertation
Presented To
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

by
Harold Louis Cothem
July 1990
A STUDY OF THE RELATIONSHIP BETWEEN PRINCIPALS' EXTENT OF PARTICIPATION IN BUDGETING, LOCUS OF CONTROL, AND JOB SATISFACTION

by

Harold L. Cothern

Approved July 1990 by

James H. Stronge, Ph.D.
Chair of Doctoral Committee

James W. Yankovich, Ed.D.

Thomas J. Ward, Jr., Ph.D.

John P. Lindstrom, Ph.D.
DEDICATION

This dissertation is dedicated to my wife, Sarah, my children, Rebecca and Andrew, to Doris and Don, and to numerous friends who have offered encouragement and support over the past few years when I began the undertaking of earning a doctorate. My deepest appreciation for your encouragement and support throughout this endeavor.
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ACKNOWLEDGEMENTS

The author wishes to express sincere appreciation to the members of his doctoral committee for their guidance and encouragement. For his support and belief in my abilities, many positive suggestions, and the painstaking job of editing this manuscript, the writer is indebted to Dr. James Stronge, chairman and advisor. For their helpful advice, constructive criticism, and generous use of their time throughout the development of this study, the author would like to thank Dr. James Yankovich and Dr. Thomas Ward. A special thanks goes to the fourth member of my committee, Dr. John Lindstrom, for providing special insights and personal encouragement in this endeavor.

Warm thanks to Don and Doris, not only for their personal help and support throughout this long project, but also for providing loving support over the last two decades of my life.

Finally I wish also to thank my family: my wife, Sarah for caring, sacrificing, and encouraging me to accomplish my ambitions; and my young children, Rebecca and Andrew, for sharing their quota of time with Dad, and accepting in good stride the absence of a father working on what must have seemed to them quite an abstraction.
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A STUDY OF THE RELATIONSHIP BETWEEN PRINCIPALS' EXTENT OF PARTICIPATION IN BUDGETING, LOCUS OF CONTROL, AND JOB SATISFACTION

ABSTRACT

The importance of participation in budgeting for managers and its relevance to job satisfaction has been the subject of a number of studies over the last several decades. In addition, the belief systems of such managers appear to constitute a significant influence on the attitudes they hold in various social situations. Specifically, the personality variable, locus of control, utilized in this study and first introduced by Rotter, refers to the individual's perceptions of events in his/her life as consequences of his/her own actions (internal control), or the result of such forces as luck, fate, or powerful others (external control).

The purpose of this study was to investigate the relationship between principals' extent of participation in budgeting, locus of control, and job satisfaction. Subjects were 191 K-12 Virginia principals from a stratified random sample of 250 who responded to a 4-part mail survey consisting of a Budgeting Participation Questionnaire, Rotter's I-E Scale, the short form of the Minnesota Satisfaction (MSQ) Questionnaire, and a demographics section.

The evidence garnered from factor analysis and multiple regression analysis in this investigation supported the following conclusions: (1) that there were no relationships found in the level of job satisfaction due to the
interaction of locus of control and extent of budget participation; (2) decision influence was the only budget-related variable found to have a statistically significant relationship to job satisfaction; (3) locus of control was also found to have a statistically significant relationship to job satisfaction.

The practical significance of the findings is that only the two variables associated with how a person feels about his/her ability to influence outcomes were the ones which related to job satisfaction. Perceptions and beliefs may account more for how satisfied a person is than job facets. In order to confirm this, it is recommended that future researchers should replicate this study by substituting other job facets (in place of budgeting participation) which may be deemed critical to the performance of school principals.
A STUDY OF THE RELATIONSHIP BETWEEN PRINCIPALS' EXTENT OF PARTICIPATION IN BUDGETING, LOCUS OF CONTROL, AND JOB SATISFACTION
Chapter I

The Problem

Introduction

The concept of school-based management, giving the building level principal the responsibility for managing all major aspects of the school's program and plant, is receiving considerable attention today. Perhaps the most challenging aspect is in recognizing the need to transfer autonomous control away from central office staff in favor of a more participatory model involving the principal. The next biggest challenge, however, comes to the principal who must accept the accountability that inevitably goes with increased decision making. Some detractors may even argue that not all principals are sufficiently prepared or disposed to accept such responsibility.

One such responsibility being shifted to the modern principal is in the area of budget participation. Full participation in the development and implementation of a school budget involves an understanding of how school budgets are constructed, revised, lobbied for and executed. Any study of budget participation likewise must take into account both the (a) process cycle of budgeting (to also include the institutional climate for influencing budgeting outcomes), and (b) the budgeted content items deemed most critical to the success of the organization. In addition, some authors
(Becker and Green, 1962) have noted that a number of psychological variables are involved in budget participation and, as a result, the process will not benefit the organization unless the content is focused toward the achievement of organizationally desirable goals: "Process means the act of participating with the possible consequences stemming from the act; content is the discussion topic toward which are generated the positive or negative attitudes." (p. 396)

Theoretical Rationale

**The budget cycle.** Budgets have been recognized to be the quantitative outputs of an organization's goals and objectives: "Budgets are also used to motivate the members of the organization by serving as targets and mechanisms for gaining involvement and commitment." (Hopwood, 1976, p. 44) Indeed, the authors of one educational administration text (Morphet, Johns, & Reller, 1967, p. 467) have defined the school budget as "the instrument through which the people can determine both their educational and their fiscal policy." The process of "effective school budgeting," according to them, must comprise the following elements:

1. The preparation of the budget in such a manner as to provide an educational program that gives effect to educational policies previously determined;
2. The budget document, which may be defined as a systematic plan and statement that forecasts the expenditures and revenues of a school system during a stated period of time;
3. The presentation, consideration, and adoption of the budget;
4. The administration of the budget;
5. The appraisal of the budget. (Morphet, Johns, & Reller, 1967, p. 467)

In addition, the implications derived from the budget process for the organization's larger life are enormous, as one author has pointed out: "In this sense, the budgetary process is really trying to organize and structure some vital elements of the wider organizational decision making process." (Hopwood, 1976, p. 41)

Climate for influencing decisions. Several authors have noted that the ability to influence decisions is important to participation in the budgeting process (Becker and Green, 1962; Caplan, 1971; Small, 1979). The climate for influencing budgeting decisions may produce both positive or negative effects, as Becker and Green (1962) have pointed out:

In order to be successful, the participants must participate, that is, must have influence on the adopted decisions. If participation can be achieved under more or less authoritarian conditions, it is likely to be effective, just as it can be undermined (by disregard) with demographic leadership. Only management itself can determine whether it is worthwhile to initiate or continue the participation segment of the budgeted cycle. (p. 401)

Thus, a principal's (a) process participation in educational planning, tied to budgetary formulation, advocacy, appraisal, administration, and decision influence, and (2) his/her content participation (i.e., the freedom to help establish and alter the content of the budget) is considered by many to be crucial to the well-being of a school (Kimbrough, 1968; Koenig, 1963; Morphet, Johns, & Reller, 1967; Weldy, 1972). Indeed, school-based management reformists of the 1980's (Doud, 1989; Neal, 1989) have deemed the connection to be so critical to the success of the educational program
that they propose placing primary responsibility for budgeting at the building level under the direction of the principal. For Doud (1989, p. 10) such a "transition represents a significant move toward professional stature and job satisfaction among...principals."

**Participation in budgeting.** The importance of participation in budgeting for mid-level managers and its relevance to job satisfaction has been the subject of a number of studies over the last several decades. Becker and Green (1962), for example, recognized that this trend of budget participation actually began nearly 60 years ago when it was recognized that imposed budgets resulted in dissatisfaction. Advice was given for budgeting to be done first at the department level and then passed to central offices for review, thus introducing participation into the budgeting area. Some educational scholars have recently pointed out that participation in the budgeting represents a critical job element relating to job satisfaction for school principals (Shipley, 1983; Small, 1979).

**The locus of control construct.** However, over the last 30 years other researchers, rather than emphasizing work facets like budget participation, have stressed that job satisfaction is really determined by an individual's set of beliefs about the relationship between his/her own or others' behavior and the subsequent occurrence of rewards and punishments. This personality construct, known as internal-external locus of control, is, in the opinion of some, more useful in predicting school principals' general affective reaction to the work setting (Richford and Fortune, 1984).

Such beliefs about one's locus of control have been defined more precisely as internal versus external control of reinforcement, a concept that grew out of Rotter's (1966) social learning theory. Briefly, Rotter's
theory of locus of control refers to whether an individual believes that what happens to him/her is a function of his/her own behavior (internal locus) or on fate, luck, or the uncontrollable actions of others (external locus).

Relevance of an integrated approach. Greater accountability, fiscal responsibility, and decentralized decision making are themes which have been espoused in the modern school management literature. Given the current emphasis on the role of the principal today as both a fiscal planner and manager, an understanding of the critical job facet of budget participation, the personality variable, locus of control, and the possible combined interaction of the two on the job satisfaction of school principals is essential. Further and more extensive theoretical rationale is found in chapter two of this proposal.

Statement of the Problem

The purpose of this study was to investigate the relationship between principals' extent of participation in budgeting, locus of control, and job satisfaction.

Research Hypothesis

It was hypothesized that there was a significant (p < .05) positive relationship between the job satisfaction exhibited by principals, their locus of control, and their level of budgeting participation. The following specific hypotheses were considered:

1. There is no significant relationship (p < .05) between the level of job satisfaction and principals' locus of control, extent of participation in budgeting, or their interaction.
2. There is no significant relationship (p < .05) between the extent of principals' participation in budgeting and level of job satisfaction.

3. There is no significant relationship (p < .05) between principals' internal-external locus of control and level of job satisfaction.

Operational Definitions

Budgeting participation. The amount of participation in aspects of both the budget process (budget planning, formulation, advocacy, administration, appraisal and decision influence) and budget content (items included in the budget). For purposes of this study, budget participation was operationally defined as individual responses to the Budget Participation Questionnaire, an instrument which was modified from an earlier questionnaire developed by Small (1979).

Job satisfaction. A function of the correspondence between an individual's needs and the reinforcer in the work environment. For the purposes of this study, job satisfaction was operationally defined as the individual results of the short form of the Minnesota Satisfaction Questionnaire (1977).

Locus of control. More precisely defined as "internal versus external control of reinforcement," a concept that refers to whether an individual believes that what happens to him/her is a function of his/her own behavior (internally controlled) or on fate, luck, or the uncontrollable actions of others (externally controlled). For purposes of this study, locus of control was operationally defined as individual scores received on Rotter's (1966) L-E Scale.

Principal. A person who is considered an executive head of a school encompassing any of grades kindergarten through twelve. For purposes of
this study, a principal was any public school principal listed in the *Virginia Educational Directory—1990*.

**Significance of the Study**

More than three decades ago Vroom (1959) recognized the propensity of social psychologists of the time to study either personality or environmental variables in the explanation of behavior. "Few," he commented, "have investigated environmental and personality determinants of behavior simultaneously" (p.322). According to Vroom (1964) an emerging approach was "growing in favor":

This approach assumes that explanations of satisfaction require the use of both work role and personality variables. It further asserts that there are important interactions between the two types of variables which can be revealed only if they receive simultaneous study. (p.162)

Indeed, a review of the literature revealed that countless studies have been devoted to the investigation of the environmental determinants of job satisfaction. Likewise, a large number have examined the relationship between locus of control and job satisfaction, and a few have even examined the relationship between participation in the budgeting process and job satisfaction. Investigation of the relationship between work and personality variables in the budgeting area, however, remains sparse. No previous study, for example, has attempted to examine the relationship among the internal-external belief systems of the principal (or any manager), participation in budget-related tasks, and job satisfaction. Such a study was needed, in order to to clarify whether job satisfaction for principals was more dependent upon a critical job element, participation in budgeting, or
upon an important personality construct, locus of control, or whether the variables interacted in some way to help produce job satisfaction, in order to confirm or refute Vroom's (1959) observation that, "Studies that ignore the interaction of participation and personality are nothing more than average effects of participation for all the persons in the group" (p. 326). Moreover, since only two previous studies (Small, 1979; Shipley, 1983) have been conducted regarding budgeting participation among principals as it relates to job satisfaction, the present study helped to refine these findings.

Limitations of the Study

The first limitation of this study was derived from the fact that the population selected was limited to public school principals in the State of Virginia. Thus, generalizability to other regions of the country was restricted. Secondly, principals' responses were limited to the questionnaire data gathering technique and relied upon the use of reactive instruments. Finally, although other persons undoubtedly assisted the principal in budgeting, i.e, assistant principals, teachers, guidance counselors, librarians, and central office staff, the study was limited to the principal as a participant in budgeting.

Major Assumptions

It was assumed that effectiveness for a school principal was related to his/her level of job satisfaction. It was further assumed, that based upon the research of countless behavioral psychologists, personality variables are useful predictors of human behavior.
Chapter 2

Review of the Related Literature

In order to study the history of the problem, develop familiarity with its theoretical background, and assess the merits of previous studies, research dealing with the topics of participation in budgeting, job satisfaction, and the personality variable known as internal-external locus of control are presented in this chapter. Specifically, the literature review which follows is organized using the following sections: budgeting participation, job satisfaction, and locus of control.

Participation in Budgeting Studies

Behavioral accounting research. Budget literature confirms that participation in budgeting has important behavioral implications for managers and generally contributes to job satisfaction. Although overall research in the area of budgets and behavioral implications is sparse, behavioral accounting research has been most significantly influenced by Argyris (1952), Stedry (1959), Simon, Guetzkow, Kotmetzsky, and Tyndall (1954) and Caplan (1971). Argyris (1952) undertook a study for the Controllership Foundation entitled, "The Impact of Budgets on People" and found that accounting budgets did indeed produce psychological effects. This exploratory case study concluded, among other things, that
"supervisors use budgets as a way of expressing their own patterns of leadership" (Argyris, 1952). Stedry's (1959) award-winning dissertation involved an experiment which determined that a relationship existed between individual performance in a cost performance budget and level of aspiration. In a similar vein, Simon, et. al. (1954), identified certain qualitative characteristics that budgets and standards could contain in order to stimulate performance. Caplan (1971) indicated the inappropriateness of the old authoritative "Theory X" view of accounting systems in view of the more humane "Theory Y" approach. The term "participative budgeting" was used by Caplan to refer to the practice of "allowing individuals who will be responsible for performance under a budget to participate in the decisions by which that budget is established" (p.85).

In addition to these classic studies, there have been some other related research efforts in the area of budgeting. For example, in the studies of Swieringa and Moncur (1972), Searfoss and Monczka (1973), Hopwood (1974), Otley (1978), and Sapp and Seiler (1980) issues have been explored such as budgetary control, the effects of budget participation, personality effects of budgetary behavior, the relationship of budget attitudes to production, and budgetary role stress. Such studies have generally confirmed the feeling that budgets have important behavioral implications.

Swieringa and Moncur (1972) found that each of four defined facets of manager's budget-oriented behavior was differentially related to various other variables measured as part of their study. For example, managers showing more participatory behavior tended to have more tenure in their positions and higher confidence in their company, while managers
exhibiting unconcerned recipient behavior tended to have lower confidence in their company. Such findings pointed out that the behavioral effects of manager's budget-oriented behavior may differ completely depending on what facets of that behavior are considered.

Searfoss and Monczka (1973) found that perceived participation in budgeting and motivation to achieve the budget are positively related along both the goal-directing effort and evaluative effort dimensions of motivation, although mostly on the first dimension. They also found that need for independence and authoritarianism did not moderate the relationship between perceived participation in budgeting and motivation to achieve the budget. Finally, they found that a positive relationship was shown to exist between perceived participation in budgeting and organizational level.

Hopwood (1974) explored the notion that participative approaches are not necessarily more effective than authoritarian styles of management or vice versa. For Hopwood, not only can the participation of managers and employees in budgeting be instrumental in increasing their acceptance of the budget, but it can also have the opposite effect.

Otley (1978) found that the way in which a budget system is operated by the line managers is as important as the technical design of the system. Different methods of budget use are likely to affect managerial behavior profoundly, but not in any uniform manner. Otley argues for the need to develop a more contingent theory of budgetary control based on differences in organizational types, the circumstances unique to the environment in which they exist, and the norms and values present in both the organization and the larger society within which it is set.
Sapp and Seiler (1980) studied accountant involvement in the budget-related control/performance measurement process and found that role stress was negatively related to job satisfaction.

**Budgets and leadership.** In particular, some studies have recognized the effects of leadership with regard to budgeting in inducing proper behavior among subordinates. Several individuals (Argyris, 1952; Becker and Green, 1962; and Hofstede, 1967) called for greater participation by operating managers in the budget development process. Pointing to evidence of resistance to earlier models of the budget setting process, they called for top management to share the responsibility of budget setting with line managers. Looking at level of autonomy in budgeting as an index of school leadership, two recent studies (Cook, 1981; Sippy, 1984), conducted respectively among secondary and elementary school principals, pointed out that certain leadership styles can be predicted by way of certain budget decisions.

**School administration and budget participation.** In the area of school administration, Koenig (1963), concluded from his study of 23 New Jersey school districts that the three key administrators involved in budgeting were the superintendent, the business manager, and the principal. In addition, recent trends in school administration have highlighted the school principal, in particular, as a needed participant in budgeting. Dramatic shifts regarding school principals' involvement in one process area of budget participation, budget administration, beginning in the 1960's and 1970's has been noted by Weldy (1972) when he stated:

As a principal for the past 15 years, I have seen my role shift from virtually no control of the budget for my school to a position of almost
complete autonomy and accountability for the costs of managing my buildings (p.29).

Kimbrough (1968), likewise, pointed out the need for four additional budget process elements when he stated:

The principal should provide leadership with the faculty to develop priorities of needs in realizing the educational plan [planning element]. He is responsible for communicating those educational needs [advocacy element] to those officials who are coordinating budgetary planning....[The] principal who does not plan for program needs will not be an effective leader for his school, especially in the school district budgeting process. School districts should initiate and maintain a formal process for the participation of the principal and his faculty in making [formulation element] the school district budget....Authorities in school finance have for many years recognized the interaction between program planning, budgeting and review functions. Within recent years there has been increasing attention to the development of scientific procedures to analyze the interrelationships [appraisal element] among these functions of school fiscal management....The idea is to find a systematic way to analyze policies and alternative means for implementing policies in terms of the probable resources needed and the feasibility of success. (p.351-352)

Weldy (1972) again emphasized the process element budget administration, when he stated that, "Educational leadership by the principal today cannot be separated from his responsibility for management of the budget" (p.27). Indeed, one recent proponent (Neal, 1989) of school-based management has argued..."that the principal is in the
best position to guarantee that school funds are spent wisely..." (p.16). Doud (1989) likewise has pointed out that the principal's ability to control [in a school-based management model] "...how dollars are spent for staff, instructional materials, and supplies is a key indicator of the principal's autonomy," and "represents a significant move toward professional stature and job satisfaction..."(p. 10).

**Budget participation and job satisfaction.** Echoing Hopwood's (1974) earlier thesis, Small (1979) found that high participation in the areas of budget-related decision influence and budget content made a significant difference in the job satisfaction of elementary principals in that those with high budgeting participation had higher job satisfaction than those without high budgeting participation in these areas. He also concluded that there were significant relationships between job satisfaction and actual participation in both budgeting process and budget content and between job satisfaction and desired participation in both budgeting process and budget content. Small's (1979) study found that not only did greater participation in budgeting by principals result in more satisfaction, but that elementary principals actually desire such participation.

A companion study by Shipley (1983) of budgeting participation among secondary school principals found similar results to those of Small (1979). Shipley concluded that categorical fund involvement, years served as a principal, school district size, and desired involvement in budgeting made no significant difference in job satisfaction. It was found, however, that actual high budget participation made a significant difference in the job satisfaction of secondary principals. Like Small (1979), Shipley found that those principals with high budget participation had higher job satisfaction than those principals without high budget participation. Like
Small (1979), Shipley found a significant difference between the actual and desired roles of principals in budgeting and also reported that secondary principals desired greater budgeting participation than they were allowed.

**Job Satisfaction Studies**

*Work facets and job satisfaction studies.* Beginning with Hoppock's (1935) seminal study, *Job Satisfaction*, countless researchers since the 1930's have endeavored to determine what makes up job satisfaction. Herzberg's (1966) two-factor theory of motivation has contributed significantly to job satisfaction research. Numerous other studies have attempted to examine the relationship between specific work variables and overall job satisfaction. Vroom (1964), for example, identified attitudes toward six variables as being common to studies on job satisfaction: job content, supervision, the work group, wages, opportunities for promotion, and hours of work. Quinn, Stainers, and McCullough (1978) studied job facets in order to ascertain trends in job satisfaction as well as to compare relative satisfaction among occupational groups. Likewise, Holdaway (1978) analyzed data on the levels of and relationships between overall job satisfaction and facet satisfaction and found that overall satisfaction was most high related to satisfaction with achievement, career-orientation, recognition, and stimulation.

While Vroom (1964) had identified facets related to both satisfiers and dissatisfiers, other writers have emphasized those that were associated most strongly with satisfaction. For example, Porter and Lawler (1968) and Lawler (1969) reported that job content can be a source of positive motivation influencing an individual's job satisfaction if intrinsic rewards appear to
result from good performance, if there is opportunity for meaningful feedback, if the job tests the individual's abilities, and if it allows for a great amount of self-control by the worker.

For both Locke (1969) and Lawler (1969) overall job satisfaction is an affective reaction to the total work role which is determined by satisfaction with all facets of the job. In addition, for them, some job facets should be weighted more than others.

Consistency of job satisfaction research. Quinn, Stainers, and McCullough (1974), in a study conducted for the Department of Labor, found that after reviewing 15 national surveys by four different organizations between 1958 and 1973 that there had likewise been no substantial alteration in overall job satisfaction in the previous decade. They found that although there had been moderate monotonic increase in global job satisfaction across the seven year period, no mean level for any particular year was found to be statistically significant.

Weaver (1980) found that there were no substantial changes among groups (i.e., gender, racial, age, educational, income, and occupational) in overall levels of job satisfaction from 1972 through 1978, consistent with like observations during the previous decade (Quinn, Stainers, and McCullough; 1974). Blacks were found to be less satisfied than whites, no gender differences in job satisfaction were found, and a positive relationship was found to exist between job satisfaction and education, age, income, and occupation.

Interpersonal relationships and job satisfaction. While we have seen that a number of authors have concluded that intrinsic aspects of the work are positively related to job satisfaction if workers are motivated by higher order need satisfaction, Schmidt (1976), whose study upheld Herzberg's
theories as applied to secondary school administrators, identified an additional variable, interpersonal relations both inside and outside the organization. However, Friesen, Holdaway, and Rice (1983), in an examination of the job satisfaction of principals and their work, found only limited support for Herzberg's two-factor theory (dissatisfiers and satisfiers) of motivation, but like Schmidt, concluded that the main sources of job satisfaction for them involved interpersonal relations.

Gunn and Holdaway (1986) went a step further in reporting the importance of interpersonal relationships to job satisfaction. In their study of senior high principals, they reported that sense of accomplishment explained 43% of the variance for overall job satisfaction. Sense of accomplishment was related to both recognition by others, including staff, and to the morale and performance of teachers and students.

Decision-making and job satisfaction. The relationship of decision-making to job satisfaction has been investigated by a number of researchers. Several studies (including Morse and Reimer, 1956; Vroom, 1959) indicate that a significant relationship exists between decision involvement and job satisfaction.

A field experiment conducted by Morse and Reimer (1956) tested hypotheses concerning the relationship between the means by which organizational decisions are made and associated differences in individual satisfaction and productivity. These researchers found that an increase in the decision-making role of individuals resulted in increased satisfactions, while a decrease in opportunity for decision-making resulted in a decrease in satisfaction.

Vroom (1959) sought to determine the effects of participation in decision-making on persons with different personality characteristics.
Vroom's research confirmed previous research that participation has positive effects on both attitudes and job performance. Moreover, he found that the magnitude of these effects is a function of certain personality characteristics of the participants. Authoritarians and individuals with weak independence needs are unaffected by the opportunity to participate in making decisions. Conversely, equalitarians and those with strong independence needs develop more positive attitudes toward their jobs and, through participation, increase their performance.

**Power and job satisfaction.** Numerous authors have commented on power as a characteristic emanating from the individual. For Kanter (1977, p. 166), a powerful individual is seen as one who exhibits the "ability to get things done." For that individual, according to Kanter, his/her perspective in life, including job satisfaction, is shaped by the position he or she occupies and the power wielded in that job.

Kotter (1979) found that effective leaders were those individuals who knew their organizational environments so well that they were able to apply different types of power to achieve desired outcomes. Those leaders who used power successfully were found to be more satisfied with their jobs.

Bacharach and Mitchell (1983) studied the sources of dissatisfaction among school administrators with varying roles. These researchers found that, with regard to principals, having power contributed to making the job easier and therefore more satisfying.

**Participation and job satisfaction.** A number of investigators have also pointed out the relationship between participation in areas central to one's work and corresponding job satisfaction. Schneider (1984), for example, observed that teachers in a level of perceived high participation had a significantly higher level of job satisfaction than those respondents in
levels of medium or low participation; and teachers in a level of medium participation had a significantly higher level of job participation than those with low levels of participation. Schneider thus concluded that a linear relationship existed between level of teacher participation and job satisfaction. Interestingly, one of the priority areas for teachers’ participation was preparation of the budget for their subject department or instructional team, thus somewhat paralleling the findings of Small (1979) and Shipley (1983) who studied job satisfaction of principals with regard to participation in budgeting.

Similarly, Schmidt's (1976) findings called for more participatory management opportunities in order to enhance job satisfaction among school administrators. In an effort to test Herzberg's (1959) Motivation-Hygiene Theory, Schmidt collected data from 32 randomly selected administrators. Data led to the conclusion that administrators are highly motivated by achievement, recognition, and advancement. However, salary, good interpersonal relations, effective policy and administration, and supervision contributed little to motivation.

**Locus of Control**

**The I-E conceptual framework.** Locus of control is a concept which grew out of Rotter's (1954) Social Learning Theory. Locus of control refers to whether an individual believes that what happens to him/her is a reflection of his/her own behavior (internally controlled) or whether it is controlled by luck, fate, the whims of others, or other uncontrollable circumstances (external events). When there is an external control expectancy or belief, reliance upon one's own behavior has little effect in
changing the behavior. In other words, where there is a need for behavior change, the person must believe that his/her behavior will have important consequences. It was, in fact, Rotter's observation about individuals' failure to change in therapy that led to the development of the theory and subsequent research on locus of control (Rotter, 1966).

The I-E concept was first outlined by Rotter (1966) along with a considerable amount of psychometric data and construct validity studies on a personality inventory, the "I-E Scale." Numerous studies have been conducted on the I-E concept since that time. The concept has become a very popular one in psychology, particularly since a short, objective scale has been so readily available to measure I-E.

I-E may be thought of as a generalized expectancy relating to how people classify situations with problems to be solved. Most situations confront individuals with problems to be solved regardless of the sort of needs involved. By categorizing situations along the I-E dimension, humans feel they can better deal with them. Locus of control, then, reflects an individual's belief, or generalized expectancy as to the best way in which the relationship between his/her behavior and the occurrence of reward and punishment should be viewed (Rotter, 1966).

**I-E: overall relationship to job satisfaction.** Much research confirms the relationship between locus of control and job satisfaction. Organ and Greene (1974), for example, found that a significant relationship existed between locus of control and job satisfaction for scientists and engineers. They also reported that the possession of job-related information and role perceptions were related to the individual's belief system whether the individual was strongly internal or not, a finding also supported by Szilagyi, Sims, and Keller (1976) in their study of manufacturing
professionals. Examining locus of control as an explanation of job perception and satisfaction from police officers to professors to soldiers, numerous authors (Lester, 1982; Manning and Fullerton, 1988; Shukla and Upadhyaya, 1986) have reported that internals perceived their jobs more favorably than did externals.

In an effort to explain why individuals tend to fall in this I-E dichotomy, Szilagyi and Sims (1975) have used a path-goal type model to show that the internal individual may indeed be more effective in looking for reinforcements in the work environment that define the performance-to-reward expectancies. The internal, according to them, may actually be more adept at discovering the requirements necessary for organizational rewards.

I-E and demographic variables--age, education, gender. Are there certain demographic differences which may account for an individual's predisposition to being either internal or external? Some researchers have explored this very point. For example, in a study of city and county managers designed to account for the relationship between age and job satisfaction, White and Spector (1987) attempted to measure the variables that had been proposed to be causal factors. Multiple regression analyses were used to conclude that job congruence and work locus of control accounted for almost all of the variance in the age-satisfaction relationship. The study reports that older workers appeared to be more satisfied because they were getting more of what they wanted out of work in terms of job characteristics, enhanced feelings of control, higher salary, and higher job level. Oliver's (1983) study was designed to test whether professionals exhibited greater internal control than holders of hierarchial positions. No significant difference was found for either job satisfaction or locus of control.
due to job type. Singh (1978), however, found that with nurses, the higher the level of education, the more internal he or she was. Likewise, level of education was positively correlated with job satisfaction. Lester (1987) identified two psychological correlates of job satisfaction for police officers, cynicism and belief in an external locus of control, to be more strongly related to job satisfaction than sociodemographic variables such as age and education. This confirms the education-satisfaction finding of Oliver (1983), although it contradicts the education-satisfaction connection reported by Singh (1978) and the age-satisfaction finding given by White and Spector (1987). Santangelo and Lester (1985) have reported that job dissatisfaction was related to belief in an external locus of control for males, but not females. In summary, then, the small amount of research in this area is inconclusive. As principals in Virginia must hold a least a master’s degree, level of education becomes a moot point for the present study. However, it appears that further exploration is needed to determine if any significant differences exist among Virginia’s principals regarding age or gender with respect to being internally or externally oriented.

**I-E and higher-order need fulfillment.** Dailey (1980) found that individuals with greater internal orientation perceived greater job involvement, psychological growth satisfaction, task difficulty, task variability, and job satisfaction than individuals with greater external orientation. In addition, it was also reported that those with a greater internal orientation did not perceive relationships between task characteristics and work attitudes differently than those with greater external orientation. Similarly, in a recent study of school teachers, Knoop (1981) found that internals perceived their jobs to be more enriched and held more positive attitudes (in terms of job satisfaction, job motivation, job
involvement, participation in decision making, work alienation, and experienced powerlessness) than did externals. Although unable to find a relationship between A-B personality type and locus of control, Frost (1983) did report that internals seemed to perceive their jobs more favorably than externals. Like other researchers, he reported that internals perceived their jobs as more enriched than externals in feedback from the job, general satisfaction, internal work motivation, and motivation potential.

Actually, some authors have gone so far as to intimate that internals' perceptions of their jobs rely upon an intuitive congruence with organizational rewards. Mitchell's (1975) findings, for example, found support for Evans' (1974) earlier path-goal conclusions that: (a) externals are generally more dissatisfied with organizational life and (b) that the behavior of internals is more consistent with a path-goal model of motivation than that of externals. Such research is also consistent with that of Szilagyi and Sims (1975) who identified the internal as one adept as discovering reinforcements in the work environment that define the performance-to-reward expectancies.

**I-E. need for achievement, and predisposition to management.** How does belief in locus of control relate to one's need for achievement? Hartley's (1975) study among college officials sought to determine the answer to this question by examining the relationship between internal-external locus of control, need for achievement, and job satisfaction. Here it was noted that externals low in need for achievement had the lowest scores on every satisfaction index. In addition, internals scored significantly higher than externals on job satisfaction indexes.

**Internals seek management positions.** Would internals tend to seek management positions as an outgrowth of the need for achievement?
Some say yes. The influence of individual characteristics and assessment center evaluation on career exploration and job involvement behavior was the subject of a recent study (Noe and Steffy, 1987) where it was found that individuals high in internal locus of control demonstrated more systematic exploration behavior and had more information regarding administrative positions than did externals.

**Internals support and hold management jobs.** Other researchers have reported that internals are generally more supportive of and even tend to occupy management positions more than externals. Kasperton (1982), for example, in his study of hospital workers, found that externals were less satisfied than internals and less positive toward and tended to project their frustrations at the organization and its management. Such findings confirm those of (a) Mitchell (1975) who found that internals were more satisfied with their jobs and more likely to be found in management positions and (b) Farkas (1983) who reported strong internality scores on a locus of control measure for principals as a group. One of the presumptions of the proposed study would include the belief that a larger portion of the sample of principals to be surveyed would be internally oriented.

**I-E and job-related stress.** Do internals or externals handle job-related stress better, and how does this relate subsequently to job satisfaction? Watson and Baumal (1967) in a very early study, found that individuals high in internal locus of control made more errors when they expected not to have control over using avoidance responses to be determined by chance (rather than learned). Externals, they reported, made more errors when they anticipated having control over avoidance responses attributed to chance. Such behavior was interpreted as showing
differential anxiety arousal in different situations. Similarly, Houston's (1972) experiment concluded that internals became more physiologically aroused under stress than externals. In addition, this experimenter concluded that individuals performed better in situations where there was congruence between their beliefs about locus of control in general and their beliefs about the locus of control in the specific situation in which they were working. Gemmeill and Heisler (1972), in a survey of managers from a manufacturing environment, found that the greater the belief in an internal locus of control, the lower the reported job strain and the higher the job satisfaction and position mobility.

If education is a high stress profession, as some believe, do internals or externals suffer most? Santangelo and Lester (1985) found that job dissatisfaction for male school teachers was related to subjectively perceived stress and belief in an external locus of control. Farkas' (1983) study found strong internality scores on a locus of control measure for principals as a group. The data also suggest that even though principals scored high as a group in internality, those principals with a low internal locus of control perceive higher job stress than do those with higher locus of control.

**I-E and job turnover.** Would we tend to find the tenure of internals or externals significantly different due to job-related stress? A number of researchers have explored the relationship between a belief in locus of control and job stress and intention to quit and employee turnover, two aspects of job satisfaction. Blau (1984), for example, examined locus of control and job turnover and found that internals showed a stronger positive relationship than externals between withdrawal cognition and turnover. Locus of control, as a variable, it was reported, moderated the
relationship between two facets of job satisfaction, promotion and pay. Like previous studies, this research also confirmed that internals generally demonstrate more job satisfaction than externals.

**I-E and job turnover - expectancy theory.** Other researchers (Greffeth and Horn, 1988) have confirmed that internals are more likely to use the future attainment of valued outcomes from their present job or an alternative than the current level of job satisfaction when deciding to terminate employment. Thus, if internals do not see their jobs as leading to valued outcomes or see an alternative which does, they are more likely to resign from their jobs. On the other hand, if they do see their jobs as leading to valued outcomes or an alternative that does not, they have a greater tendency to remain in their jobs. Conversely, externals, it was found, when deciding whether to quit or stay in their jobs, were more influenced by their current level of job satisfaction than the future attainment of valued outcomes. Spector and Michaels (1986) found that externality was linked with intentions to quit, and that locus of control moderated the relationship between job satisfaction and the intention to quit, but not turnover.

**I-E and bureaucratic structures.** Do internals or externals function better in a more structured environment? In an effort to examine the interaction between teachers' orientation to locus of control and the degree of bureaucratization in secondary schools as it affected job satisfaction, Monroe (1969) found internals were significantly more satisfied in schools high in both authority and expertise. Such a structured environment could help predict the outcomes of one's own behavior, according to this researcher, and consequently would be more appealing to the internally-oriented teacher.
I-E and opportunities for participation. Participation in the budgeting process as been identified as a key work variable for this proposed study. How important, then is the job facet participation as it relates to an individual's locus of control? Some investigators have pointed to a relationship between an internal locus of control and a desire for a participatory, non-manipulative style of management. Mitchell's (1975) research, for example, has revealed that a participatory management style contributes to job satisfaction for both internals and externals, although internals are more satisfied than externals with a participatory management style. He also surmised that internals as managers would tend to be more participatory than externals. Richford and Fortune (1984) confirmed this in their study of 225 Virginia secondary school principals. Here it was found that positive work reinforcement was proportional to the extent which principals rejected manipulativeness and espoused internality. Likewise, principals expressed less-than-satisfied feelings toward the work environment proportional to the amount of manipulativeness which they expressed. External locus of control, thus, was positively associated with manipulativeness and low job satisfaction. Internal locus of control, conversely, was positively related to non-manipulative behavior and high job satisfaction.

I-E and job characteristics. As the relationship of job facets and locus of control to job satisfaction is the critical focus of this proposal, it must be noted that attention to this key interaction has been the subject of two previous studies, even if to a small degree. Silvers and Deni (1983) conducted a study to determine if there would be interaction between an individual's locus of control and his/her ratings of the importance of job factors defined as either internal or external in orientation. The highest
ratings of importance were obtained for internals rating internally-oriented items and externals rating externally-oriented items. Overall, individuals rated internally-oriented items more important than externally-oriented ones. These researchers found that a significant interaction existed between locus of control and job satisfaction factors rated on importance. Thus it may be surmised that if job satisfaction is indeed the result of the interaction of job factors and locus of control, certain job factors such as participation in budgeting (as confirmed in previously mentioned research) are more important than others in producing these results.

In an effort to determine the relationship between locus of control and reactions of employees to work characteristics, Kimmons and Greenhaus (1976) conducted a study of 193 managers in a large utility company and found that internals perceived more autonomy, feedback, and performance-reward associations than externals. Internals were also more involved and satisfied in their jobs than externals. Although the correlations between job satisfaction and work characteristics were small, they were reported as generally positive. Such important findings (Kimmons and Greenhaus, 1976) may be quite helpful in this present proposed research, for if the same results are repeated, it may help confirm one of the justifications given for the study—that the two variables, locus of control and a work characteristic (in this case opportunities for participation in budgeting), interact in some way to help produce job satisfaction.
Summary

Recent research in school administration has placed renewed emphasis on the role of the school principal as a key player in budgeting. Some reformers have even proposed decentralizing control of the school district budget and placing primary responsibility for budgeting under the direction of the building-level principal. This focus on participative budgeting is consistent with behavioral accounting research conducted over the last 60 years which has shown that the greater the level of participation in budgeting by mid-level managers, the greater the job satisfaction. Such a position is based upon the recognition of budgeting as a critical job facet. Some educational researchers have specifically tied this relationship of job satisfaction and participation in budgeting to school principals (Shipley, 1983; Small, 1979).

Although numerous job satisfaction studies since the 1930's have consistently confirmed that a significant relationship exists between overall job satisfaction and critical job facets, other researchers over the last 30 years have identified job satisfaction as a measurement of an individual's ability to seek reinforcements in the work environment that define the performance-to-reward expectancies. This personality construct known as locus of control has likewise been the subject of thousands of studies which have consistently reported that a relationship exists between this personality variable and job satisfaction.

A review of the literature, then, has revealed that a large number of studies have examined the relationship between locus of control and job satisfaction. To a lesser degree some have even pointed out the relationship between budgeting participation and job satisfaction. Even fewer hint at the
need for the interaction of critical work facets and locus of control in producing job satisfaction. Yet no previous studies have reported on the relationship regarding the internal-external belief systems of the principal (or any managers), participation (in this case budget-related tasks), and job satisfaction. From this review, therefore, it became clear that further research was needed to consider both the personality variable, locus of control and the critical job facet of budgeting participation as they relate to the job satisfaction of principals.
Chapter 3

Procedures

Introduction

This chapter presents descriptions of the sample involved in this study, the instrumentation, and the method of data collection. Statistical hypotheses, and the procedures for analyzing the data are also presented.

The present investigation was based upon a correlational methodology:

[a] method of analyzing research data...useful in studying problems in education and in other behavioral sciences. Its principal advantage is that it permits one to analyze the relationships among a large number of variables in a single study....The correlational method allows the researcher to analyze how several variables, either singly or in combination, might affect a particular pattern of behavior. (Borg, 1983, p. 575)

Independent variables. The first three independent variables identified measured levels of budgeting participation: budgeting influence, establishing budgeting content, and altering budgeting content. These variables were operationally defined in terms of individual responses to three subscales of the Budgeting Participation Questionnaire. The fourth
independent variable identified was locus of control. This was operationally defined as individual scores on Rotter's (1966) I-E Scale.

Dependent variable. The dependent variable, general job satisfaction of public school principals, consisted of individual responses on the short form of Minnesota Satisfaction Questionnaire (MSQ, 1977).

Sample and Accessible Population

Sample size. A stratified sample of 250 was randomly selected from the population of all elementary, middle (intermediate, junior high) and high school principals in 138 school districts in Virginia. The sample size was selected in order to insure adequate representation among Virginia's principals. The stratified sample of principals represented the same percentages as those found in the population of elementary principals in the state. A total of 175 elementary principals (70%) from the sample were surveyed. Likewise, 35 middle school principals (14%) from the sample were surveyed. The total number of high school principals surveyed was 40 or 16% of the total sample. Procedurally, a computer-generated list of random numbers was used to select these principals from a mailing list representing the 1,626 principals listed in the Virginia Educational Directory 1990.

Description. These principals work in both rural and urban school districts which vary in student population size (computed as average daily membership) from approximately 500 to more than 120,000, include communities with composite indices (based on an ability-to-pay formula) ranging from .1008 to .8000, and have a per-pupil expenditure ranging from
$3050 to $7,117. Individual schools within the state range in student membership size from approximately 100 to more than 3,000 (Virginia Department of Education). Elementary school principals number 1,139 or 70% of the accessible population, while middle school principals and high school principals respectively account for 230 (14%) and 258 (16%) of Virginia's principals.

**Generalizability.** Results of this study may be generalized to include all public school principals in Virginia. To a lesser extent, the results may also be generalized to include a target population of public school principals throughout the United States.

**Instrumentation**

**Minnesota Satisfaction Questionnaire validity and reliability.** Development of the MSQ was first reported in Monograph XVIII of the *Minnesota Studies in Vocational Rehabilitation* series, "Construct Validation of the MSQ" (cited in Weiss, Davis, England, and Lofquist, 1967). Evidence for the validity of the MSQ rests primarily upon its performance according to theoretical expectations. The concept measured, "general job satisfaction," was derived indirectly from Construct Validation Studies of the Minnesota Importance Questionnaire (MIQ, 1964), based on the Theory of Work Adjustment (cited in Weiss, et. al., 1967) conducted at the University of Minnesota by the Work Adjustment Project. General job satisfaction (using an exact factor score), in these studies, was the dependent variable; the independent variables were the MSQ scale scores in a multivariate prediction problem. Since each prediction study involved individuals who were all employed at the same kind of job, reinforcement
was assumed to be constant. Just as evidence for the construct validity of the MSQ as a general measure of job satisfaction was derived from studies based on the Theory of Work Adjustment, so construct validity for the MSQ's Ability Utilization, Advancement, Variety, Authority, Achievement, Creativity and Responsibility Scales were likewise yielded through analysis of the data.

Factor analysis data were also presented in the test administration manual of the MSQ (Weiss, et. al., 1967) to support the content validity of the instrument. Results of the factor analysis, in general, indicate that about half of the common MSQ scale score variance can be represented by an extrinsic satisfaction while the other half defines one or more intrinsic satisfaction factors, accounting for the other half of the common variance. Such results indicate that the factor structure of satisfaction varies among occupational groups.

As evidence of concurrent validity, a large body of knowledge accumulated over 30 years has demonstrated that there are occupational differences in job satisfaction in both level and variability. Data on 25 occupational groups were analyzed both by one-way analysis of variance to test differences in the level of expressed satisfaction and by Bartlett’s test of homogeneity of variance to test differences in group variabilities. Group differences were statistically significant at the .001 level for both means and variances of all 21 MSQ scales. The results indicate that the MSQ can differentiate among occupational groups (Weiss, et. al., 1967).

Hoyt reliability coefficients (coefficient of internal consistency) for the MSQ scales ranged from a high of .97 on Ability Utilization and on Working Conditions (for social workers) to a low of .59 on Variety (for buyers). The median Hoyt reliability coefficients ranged from .93 for Advancement and
Recognition to .78 for Responsibility. Of all the Hoyt reliability coefficients reported in the data, 83% were .80 or higher and only 2.5% were lower than .70. Thus, the data suggest that the MSQ scales have adequate internal consistency reliabilities. Data on stability of the scores on the 21 MSQ scales were obtained for two time intervals—one week and one year. One week test-retest correlation coefficients for the 21 MSQ scales ranged from .66 for Coworkers, to .91 for Working Conditions. Median coefficients (not including the General Satisfaction scale) was .83. One week coefficient of stability for the General Satisfaction scale was .89. Test-retest correlation coefficient for a one-year interval for the General Satisfaction scale of .70 was reported. Additionally, a canonical correlation analysis was conducted. A test-retest canonical correlation coefficient is a measure which gives one correlation coefficient, the square of which gives the proportion of variance in linear combinations of the set of scores which remains common over the time period. Such an analysis of the reported data yielded maximum coefficients of .97 over the one-week interval, and over the one-year interval a maximum coefficient of .89. These coefficients were significant well beyond the .001 level of statistical significance, and indicate that about 95% of the variance of the canonical variates is predictable on one-week retest and about 80% over the one-year interval. Thus the data suggest that the MSQ scales have adequate test reliability. (Weiss, et. al., 1967)

Acceptable validity and reliability for the MSQ short form were indicated by generally high Hoyt reliability coefficients for each of six norm groups. For the Intrinsic Satisfaction scale, the coefficients ranged from .84 to .91. For the Extrinsic Satisfaction scale, the coefficients varied from .77 to .82. On the General Satisfaction scale, the coefficients varied from .87 to .92. Median reliability coefficients were .86 for Intrinsic Satisfaction and
.90 for General Satisfaction. Stability for the General Satisfaction Scale may be inferred from data on the General Satisfaction scale on the long-form MSQ, since both scales use the same 20 items. Coefficient of stability for the General Satisfaction scale on the longer test, as reported earlier was .89 for a one-week period and .70 over a one-year interval. Since the short-form MSQ is based on a subset of the long-form items, validity may be inferred in part from validity on the long-form. Data also presented in the test administration manual includes other evidence of the validity of the short-form MSQ derived from studies of occupational group differences and studies of the relationship between satisfaction and satisfactoriness (Weiss, Davis, England, and Lofquist, 1977).

I-E Scale validity and reliability. Development of the I-E Scale was first reported by Rotter (1966) in an article entitled "Generalized Expectancies for Internal Versus External Control of Reinforcement," found in Psychological Monographs. Mainly evidence for construct validity of the I-E Scale arises from the predicted differences for individuals above and below the median scale or from correlations with behavioral criteria. Factor analysis studies and multi-method measurement techniques are cited in the monograph which provide strong evidence for the hypotheses that the person who has believes in control of his own destiny (a) is more sensitive to those environmental aspects which provide useful information for his future behavior; (b) is more likely to initiate steps to improve his environmental condition; (c) places greater value on achievement reinforcers and be generally more concerned with his/her ability; and is more sensitive to efforts to influence him/her.

Internal consistency estimates are reported to be relatively stable; split half reliability coefficients for university males were reported at .65
and at .79, for a combined score of .73. Two separate samples of equivalent male-female groups using Kuder-Richardson 20 reported .73 and .70 combined scores respectively. A national stratified sample with an approximately equal distribution of males and females reported a combined Kuder-Richardson 20 of .69. Although the estimates are only moderately high for a scale of this length, Rotter (1966) pointed out that the items on the I-E Scale are not arranged in a difficulty hierarchy, and are thus really samples of attitudes in a wide range of different situations. The test, being additive in nature, makes the test items non-comparative. Thus, split-half or match-half reliability, according to Rotter (1966), tends to underestimate the internal consistency. Since the I-E Scale is a forced-choice test where an attempt is made to balance alternatives so that probabilities of choosing either alternative do not include the more extreme splits, Kuder-Richardson reliabilities, according to Rotter (1966) are also somewhat limited. One month test-retest reliability coefficients are also reported. They ranged from .72 to .78, while combined two-month test-retest reliability was reported as .55. The I-E Scale generally shows low negative correlations with the Marlowe-Crowne Social Desirability Scale (correlation of -.22 as the median for the different samples of combined scores of male and female college students) and with various personality measures, indicating the I-E Scale discriminates among those items commonly used in such measures, and which are not associated with the locus of control construct. The I-E scale is scored based on the total number of external choices ranging from one to 23.

*Budgeting Participation Questionnaire validity and reliability.* Small (1979) indicated that a great deal of consensus existed among both researchers and practitioners with respect to the functions which should be
performed by principals who participate in budgeting. Content analysis of the literature revealed that the areas of participation on which most authors agreed included: educational supplies, instructional equipment, and library books and equipment. Moreover, Small's (1979) analysis also revealed that the most satisfying type of principal participation should include: sharing the process with his/her superior, originating the budget request, seeing his/her request being carefully considered, and defending his/her budget plans to those who make the final decision. Designing an instrument, modeled after a Decision Participation Analysis Questionnaire developed by Frank and Davis (1978), Small (1979), sought, among other things, to determine the degree of participation of principals in budgeting. Those areas of a principals' budget responsibility cited in the literature were included in an instrument which was field tested with a group of eight educational experts. The experts received a follow-up telephone interview to discuss the content validity of the instrument. Two additional school principals were also consulted concerning the choice of the items of responsibility used. The specific areas of responsibility described in the literature along with decision influence-related items listed by these experts were included in the final questionnaire. Items of responsibility included on the instrument were: educational supplies, building office supplies, instructional equipment, building library books, library equipment, custodial supplies, and physical improvements to building. With 9 of the 10 experts giving unanimous consensus to the use of twelve items, face validity was thus established. Further analysis of the budget participation literature by the present researcher resulted in refining the previous items of the Small (1979) instrument. The literature search also verified the need for additional items to be added to the original survey. This produced a
substantially modified version of the original instrument. Such efforts at improving face validity was further strengthened by inferring construct validity from the results of a factor analysis on the responses to the new instrument.

Small's (1979) analysis of the literature also verified use of the instrument scales to reflect the degree of participation: make the decision, recommend a decision, suggest possible alternative decisions, provide and gather information, and do not participate. Small reported no reliability strength in the construction of his instrument. The items on the revised instrument used in the present study, however, were subjected to factor analysis which clustered the items which were highly correlated together. This allowed the researcher to eliminate one of the four subscales (budgeting involvement) from further analysis in the study. Thus the use of factor analysis helped to strengthen the interpretation of the Budgeting Participation Questionnaire (with the computation of a correlation coefficient for each item) by reflecting the extent to which the instrument was free of error variance.

Data Collection Procedures

A master mailing list of all the public school principals in Virginia was used to conduct survey research for this study. Three instruments, together with a letter of transmittal, was mailed to a stratified random sample of 250 Virginia school principals. Each subject was asked to respond to the three part survey. Two weeks following the first mailing, a new instrument packet was re-mailed to all non-respondents.
A brief personal section containing various demographic data preceded the questions found in the survey instrument and contained the following data: gender of respondent, years experience as a principal or assistant principal, grade level span of responsibility, size of school (number of pupils) and school district size (student membership). Part One of the survey, a budgeting participation instrument substantially modified from one developed by Small (1979), was used to measure the level of participation in budgeting. The Budgeting Participation Questionnaire was divided into two sections: Section One contained five questions designed to assess principals' perception of their participation in five budgeting process elements (budget planning, formulation, advocacy, appraisal, and administration) and four questions designed to assess the sixth budgeting process element, level of decision influence (personal influence on what goes into budgeted items in a district budget, personal influence on superiors' budget decisions, level of superiors' request for principal's input in budget decisions, and superior's accessibility to principal's request for budget changes affecting subordinate's school). Section Two consisted of 14 questions designed to ascertain the principals' perception of their level of participation in establishing and altering seven content elements of their budgets (educational supplies, office supplies, instructional equipment, library books, library equipment, custodial supplies, and school plant improvements).

The second instrument used in this study was the 20-question short form of the Minnesota Satisfaction Questionnaire (Weiss et. al., 1977). It was used to measure dimensions of general job satisfaction. The original long form of the instrument was developed at the University of Minnesota in 1967 as part of the Work Adjustment Project in an effort to indicate that
work adjustment is dependent upon the correlation of a person's abilities to
the ability requirements of the job, and how well his/her needs relate to
reinforcers found in the job environment.

The final instrument used in this investigation was Rotter's (1966) I-Z-
E Scale, a forced-choice 29-item scale including six filler items intended to
make somewhat more ambiguous the purpose of the test. The test was used
to measure internal-external locus of control.

The questionnaire was designed so that the respondent's code
number could be unobtrusively written on the back of the last page of the
survey form. The code number included a designation to identify whether
the response was from an elementary, middle, or high school principal. In
addition, the same code number also appeared on the labeled envelope
containing the researcher's address. The codes could be torn off as soon as
questionnaires were returned and before responses were tabulated, thus,
insuring confidentiality for respondents.

Statistical Hypotheses

The following null hypotheses were tested:

1. There is no significant relationship (p < .05) between the level of job
   satisfaction and principals' locus of control, extent of participation in
   budgeting, or their interaction.

2. There is no significant relationship (p < .05) between the extent of
   principals' participation in budgeting and level of job satisfaction.

3. There is no significant relationship (p < .05) between principals'
   internal-external locus of control and level of job satisfaction.
Data Analysis

When the questionnaires were returned by the respondents, the code numbers, date of receipt, and answers were transferred to a spreadsheet (Excel 2.2, Microsoft, Inc., 1989) for preliminary computer analysis. The data were then analyzed using the appropriate statistical procedures. Responses to the Budgeting Participation Questionnaire were factor analyzed (SYSTAT 3.2, Systat, Inc., 1988) in order to determine whether or not relatively independent factors were part of the measurement. This step was important in that the results of the factor analysis dictated the number of independent variables which were considered in the multiple regression analysis used to test the research hypotheses. The Pearson correlation technique (SYSTAT 3.2, Systat, Inc., 1988) was also used confirm the independence of the selected factors as independent variables. These analyses were thus used to help the researcher better understand the theoretical composition of the budgeting participation construct and to verify reliability of the Budgeting Participation Questionnaire.

The second stage of data analysis consisted of creating a prediction equation for the dependent variable, job satisfaction. The next step was to subject to a multiple regression analysis raw scores relating to the dependent variable, job satisfaction (MSQ) and also locus of control (I-E Scale) and the three budgeting participation subscales (decision influence, establishing content, and altering content) along with their interactions as the independent variables. The multiple regression statistical technique (SYSTAT 3.2, Systat, Inc., 1988) was used as the appropriate test of significance in a relationship design. A probability level of $p < .05$ was chosen to protect against a Type I error.
Chapter 4

Analysis of Results

It was the intent of this study to investigate the relationship between principals' extent of budgeting participation, locus of control, and job satisfaction. A mail survey consisting of the Minnesota Job Satisfaction Questionnaire (Short Form), the Budgeting Participation Questionnaire substantially modified by this researcher from one originally developed by Small (1979), and Rotter's I-E Scale were administered to a stratified sample of 250 elementary, middle, and high public school school principals in Virginia.

A total of 191 of the 250 principals sampled completed and returned survey instruments, representing an overall rate of 76%. Of the 175 elementary principals who were mailed questionnaires (70% of the sample) returns were received from 136, representing a return rate of 78%. Twenty-six of the 35 middle school principals (14% of the sample) returned survey forms, representing a return rate of 74%. High school principals (16% of the sample) returned a total of 29 out of 40 survey forms, representing a return rate of 72.5%. This homogeneity of responses was considered to be acceptable as representative of the target audience.

Of the total responding principals, 133 were males and 58 were females. Combined experience as a principal and/or assistant principal ranged from one year to more than 12 years. Experience as a principal at
their present school ranged from one year to more than 13 years. School division size for the respondents ranged from fewer than 1,000 to more than 100,000 pupils, while school building size ranged from less than 200 to more than 1,000 pupils. Table 1 presents the descriptive data based on the various demographic information requested from the principals.

Table 1

Demographic/personal data

<table>
<thead>
<tr>
<th>Descriptive area</th>
<th>Descriptive category</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Males</td>
<td>133</td>
<td>69.63%</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>58</td>
<td>30.37%</td>
</tr>
<tr>
<td>Total years as principal or assistant principal</td>
<td>0-1 years</td>
<td>9</td>
<td>4.71%</td>
</tr>
<tr>
<td></td>
<td>2-4 years</td>
<td>32</td>
<td>16.75%</td>
</tr>
<tr>
<td></td>
<td>5-8 years</td>
<td>28</td>
<td>14.66%</td>
</tr>
<tr>
<td></td>
<td>9-13 years</td>
<td>39</td>
<td>20.42%</td>
</tr>
<tr>
<td></td>
<td>More than 13</td>
<td>83</td>
<td>43.46%</td>
</tr>
<tr>
<td>Total years as principal at present school</td>
<td>0-1 years</td>
<td>50</td>
<td>26.18%</td>
</tr>
<tr>
<td></td>
<td>2-4 years</td>
<td>68</td>
<td>35.60%</td>
</tr>
<tr>
<td></td>
<td>5-8 years</td>
<td>25</td>
<td>13.09%</td>
</tr>
<tr>
<td></td>
<td>9-13 years</td>
<td>26</td>
<td>13.61%</td>
</tr>
<tr>
<td></td>
<td>More than 13</td>
<td>22</td>
<td>11.52%</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>Descriptive area</th>
<th>Descriptive category</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of school district</td>
<td>0-1000 pupils</td>
<td>10</td>
<td>5.24%</td>
</tr>
<tr>
<td></td>
<td>1001-5000 pupils</td>
<td>62</td>
<td>32.46%</td>
</tr>
<tr>
<td></td>
<td>5001-10,000 pupils</td>
<td>43</td>
<td>22.51%</td>
</tr>
<tr>
<td></td>
<td>10,001-20,000 pupils</td>
<td>24</td>
<td>12.57%</td>
</tr>
<tr>
<td></td>
<td>20,001-50,000 pupils</td>
<td>26</td>
<td>13.61%</td>
</tr>
<tr>
<td></td>
<td>50,000-100,000 pupils</td>
<td>16</td>
<td>8.38%</td>
</tr>
<tr>
<td></td>
<td>More than 100,000 pupils</td>
<td>10</td>
<td>5.24%</td>
</tr>
<tr>
<td>Size of building</td>
<td>0-200 pupils</td>
<td>15</td>
<td>7.85%</td>
</tr>
<tr>
<td></td>
<td>201-400 pupils</td>
<td>54</td>
<td>28.27%</td>
</tr>
<tr>
<td></td>
<td>401-600 pupils</td>
<td>48</td>
<td>25.13%</td>
</tr>
<tr>
<td></td>
<td>601-800 pupils</td>
<td>40</td>
<td>20.94%</td>
</tr>
<tr>
<td></td>
<td>801-1000 pupils</td>
<td>16</td>
<td>8.38%</td>
</tr>
<tr>
<td></td>
<td>More than 1,000 pupils</td>
<td>18</td>
<td>9.42%</td>
</tr>
</tbody>
</table>

Means and standard deviations for independent and dependent variables are reported in Table 8 (see Appendix).

**Findings**

Individual responses to the 23-item Budgeting Participation Questionnaire were subjected to principal components factor analysis with varimax rotation in order to determine the number of independent factors comprising the scale. This step was critical in that the results of the factor
analysis dictated the number of independent variables to be considered in
the multiple regression model which was used to test the overall research
hypotheses. Following established practice, three factors from the
Budgeting Participation Questionnaire were retained. The factor analysis
on the data yielded three Eigenvalues greater than one as seen in Table 2.
These three factors accounted respectively for 47.959, 13.348, and 8.086
percent of the total variance as presented in Table 3.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11.030</td>
<td>3.070</td>
<td>1.860</td>
<td>0.960</td>
<td>0.846</td>
</tr>
<tr>
<td>6</td>
<td>0.766</td>
<td>0.735</td>
<td>0.569</td>
<td>0.554</td>
<td>0.408</td>
</tr>
<tr>
<td>11</td>
<td>0.326</td>
<td>0.304</td>
<td>0.257</td>
<td>0.243</td>
<td>0.195</td>
</tr>
<tr>
<td>16</td>
<td>0.188</td>
<td>0.148</td>
<td>0.136</td>
<td>0.124</td>
<td>0.096</td>
</tr>
<tr>
<td>21</td>
<td>0.086</td>
<td>0.051</td>
<td>0.048</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Latent roots (eigenvalues) from 23 items in budget participation
questionnaire
Table 3

Percent of total variance explained in 23 budget participation items

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.959</td>
<td>13.348</td>
<td>8.086</td>
<td>4.175</td>
<td>3.677</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>3.330</td>
<td>3.198</td>
<td>2.472</td>
<td>2.409</td>
<td>1.774</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1.416</td>
<td>1.322</td>
<td>1.119</td>
<td>1.055</td>
<td>0.848</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>0.819</td>
<td>0.645</td>
<td>0.593</td>
<td>0.538</td>
<td>0.417</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.373</td>
<td>0.220</td>
<td>0.207</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examination of the factor loadings from Table 4 confirmed factor one to be represented by the items from Section A (decision influence); factor two was confirmed to be represented by items from Section C (establishing content); factor three was confirmed to be represented by items from Section D (altering content). Use of scores from Section B (decision involvement) was eliminated from further analysis due to low factor loadings.
Table 4

Partial results of rotated loadings on 23-items budget questionnaire

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision influence 1</td>
<td>0.255</td>
<td>0.091</td>
<td>0.296</td>
</tr>
<tr>
<td>Decision influence 2</td>
<td>0.810</td>
<td>0.140</td>
<td>0.252</td>
</tr>
<tr>
<td>Decision influence 3</td>
<td>0.266</td>
<td>0.035</td>
<td>0.240</td>
</tr>
<tr>
<td>Decision influence 4</td>
<td>0.262</td>
<td>0.177</td>
<td>0.154</td>
</tr>
<tr>
<td>Decision involvement 1</td>
<td>0.152</td>
<td>0.110</td>
<td>0.273</td>
</tr>
<tr>
<td>Decision involvement 2</td>
<td>0.099</td>
<td>0.013</td>
<td>0.261</td>
</tr>
<tr>
<td>Decision involvement 3</td>
<td>0.097</td>
<td>0.049</td>
<td>0.153</td>
</tr>
<tr>
<td>Decision involvement 4</td>
<td>0.128</td>
<td>0.285</td>
<td>0.136</td>
</tr>
<tr>
<td>Decision involvement 5</td>
<td>0.104</td>
<td>0.158</td>
<td>0.242</td>
</tr>
<tr>
<td>Establishing content 1</td>
<td>0.122</td>
<td>0.269</td>
<td>0.882</td>
</tr>
<tr>
<td>Establishing content 2</td>
<td>0.120</td>
<td>0.196</td>
<td>0.892</td>
</tr>
<tr>
<td>Establishing content 3</td>
<td>0.087</td>
<td>0.216</td>
<td>0.839</td>
</tr>
<tr>
<td>Establishing content 4</td>
<td>0.054</td>
<td>0.180</td>
<td>0.657</td>
</tr>
<tr>
<td>Establishing content 5</td>
<td>0.033</td>
<td>0.166</td>
<td>0.646</td>
</tr>
<tr>
<td>Establishing content 6</td>
<td>0.060</td>
<td>0.151</td>
<td>0.434</td>
</tr>
<tr>
<td>Establishing content 7</td>
<td>0.085</td>
<td>0.154</td>
<td>0.552</td>
</tr>
<tr>
<td>Altering content 1</td>
<td>0.043</td>
<td>0.913</td>
<td>0.231</td>
</tr>
<tr>
<td>Altering content 2</td>
<td>0.067</td>
<td>0.895</td>
<td>0.225</td>
</tr>
<tr>
<td>Altering content 3</td>
<td>0.062</td>
<td>0.838</td>
<td>0.215</td>
</tr>
<tr>
<td>Altering content 4</td>
<td>0.082</td>
<td>0.513</td>
<td>0.167</td>
</tr>
<tr>
<td>Altering content 5</td>
<td>0.054</td>
<td>0.498</td>
<td>0.153</td>
</tr>
<tr>
<td>Altering content 6</td>
<td>0.030</td>
<td>0.478</td>
<td>0.083</td>
</tr>
<tr>
<td>Altering content 7</td>
<td>0.120</td>
<td>0.479</td>
<td>0.172</td>
</tr>
</tbody>
</table>
Decision involvement was deemed to be generally indicative of overall participation. This was reaffirmed through high Pearson correlations with the other subscales (Table 5). These two analyses were used to support the theoretical composition of the budgeting participation construct and to verify internal consistency of the Budgeting Participation Questionnaire.

Table 5

Pearson correlation matrix of 4 budget participation questionnaire scaled scores, IE raw scores, and job satisfaction (MSQ) raw scores

<table>
<thead>
<tr>
<th></th>
<th>Infl</th>
<th>Invol</th>
<th>Estab</th>
<th>Alter</th>
<th>IE</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infl</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invol</td>
<td>0.753</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estab</td>
<td>0.576</td>
<td>0.601</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alter</td>
<td>0.406</td>
<td>0.434</td>
<td>0.565</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IE</td>
<td>-0.106</td>
<td>-0.104</td>
<td>-0.106</td>
<td>-0.131</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Sat</td>
<td>0.343</td>
<td>0.259</td>
<td>0.167</td>
<td>0.208</td>
<td>-0.279</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The second stage of data analysis consisted of creating a prediction equation for the dependent variable, job satisfaction. The data were then subjected to a multiple regression analysis: the dependent variable, job satisfaction (total raw scores from the MSQ), locus of control (total scores...
from the I-E Scale), the three budgeting participation scales retained from the factor analysis (Infl, Estab, and Alter), and their interactions as the independent variables. An alpha level of $p < .05$ was chosen as the level of significance to protect against a Type I error.

Hypothesis 1: There is no significant relationship ($p < .05$) between the level of job satisfaction and principals' locus of control, extent of participation in budgeting, or their interaction.

First level analysis through multiple linear regression yielded no interactions or even single probabilities less than .05 (Table 6). Hypothesis 1 therefore was not rejected, as two-tailed probabilities for the interaction of decision influence and I-E were at the 0.492 level, at the 0.0861 level for the interaction of establishing content and I-E, and at the 0.455 level for the interaction of altering content and I-E.
Table 6

**Multiple regression on one dependent and five independent variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std error</th>
<th>Std coef</th>
<th>Tolerance</th>
<th>T</th>
<th>P (2 tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>73.704</td>
<td>5.692</td>
<td>0.000</td>
<td>.</td>
<td>12.948</td>
<td>0.000</td>
</tr>
<tr>
<td>Infl</td>
<td>0.564</td>
<td>0.475</td>
<td>0.215</td>
<td>0.1334683</td>
<td>1.187</td>
<td>0.237</td>
</tr>
<tr>
<td>Estab</td>
<td>0.262</td>
<td>0.252</td>
<td>0.220</td>
<td>0.0973831</td>
<td>1.039</td>
<td>0.300</td>
</tr>
<tr>
<td>Alter</td>
<td>-0.031</td>
<td>0.221</td>
<td>-0.026</td>
<td>0.1258420</td>
<td>-0.141</td>
<td>0.888</td>
</tr>
<tr>
<td>IE</td>
<td>-0.506</td>
<td>0.726</td>
<td>-0.160</td>
<td>0.0836093</td>
<td>-0.698</td>
<td>0.486</td>
</tr>
<tr>
<td>Infl * IE</td>
<td>0.042</td>
<td>0.061</td>
<td>0.207</td>
<td>0.0484076</td>
<td>0.689</td>
<td>0.492</td>
</tr>
<tr>
<td>Estab * IE</td>
<td>-0.057</td>
<td>0.033</td>
<td>-0.510</td>
<td>0.0500376</td>
<td>-1.724</td>
<td>0.086</td>
</tr>
<tr>
<td>Alter * IE</td>
<td>0.023</td>
<td>0.031</td>
<td>0.190</td>
<td>0.0676717</td>
<td>0.749</td>
<td>0.455</td>
</tr>
</tbody>
</table>

Hypothesis 2: There is no significant relationship (p <.05) between the extent of principals' participation in budgeting and level of job satisfaction.

Subsequent stepwise regression yielded a subset model (Sat = Constant + Infl + IE). At this stage, Hypothesis 2 was not rejected for the 2 of the 3 remaining budget variables, establishing content and altering content.
The results of a second level of analysis using the two predictors, decision influence (the final remaining budget participation variable) and I-E, are presented in Table 7 where multiple regression analysis resulted in a Multiple R of 0.421, a Squared Multiple R of 0.177, an Adjusted Squared Multiple R of 0.168 and a Standard Error of Estimate of 10.219.

Table 7

**Stepwise multiple regression on one dependent and five independent variables**

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>R</th>
<th>Rsquare</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Infl</td>
<td>.343</td>
<td>.118</td>
</tr>
<tr>
<td>2</td>
<td>IE</td>
<td>.421</td>
<td>.177</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std error</th>
<th>Std coeff</th>
<th>Tolerance</th>
<th>T</th>
<th>P (2 tail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>75.526</td>
<td>2.933</td>
<td>0.000</td>
<td></td>
<td>25.752</td>
<td>0.000***</td>
</tr>
<tr>
<td>Infl</td>
<td>0.833</td>
<td>0.175</td>
<td>0.317</td>
<td>0.9887971</td>
<td>4.768</td>
<td>0.000***</td>
</tr>
<tr>
<td>IE</td>
<td>-0.778</td>
<td>0.211</td>
<td>-0.245</td>
<td>0.9887971</td>
<td>-3.684</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

Hypothesis 2: There is no significant relationship (p < .05) between the extent of principals' participation in budgeting and level of job satisfaction.
Hypothesis 2 was rejected for the only remaining budget-related independent variable, decision influence, which was statistically significant beyond the .000 two-tailed probability level with a critical $t$ of 4.768, a standard error of 0.175 and a coefficient of 0.833.

Hypothesis 3: There is no significant relationship ($p < .05$)
between principals' internal-external locus of control and level of job satisfaction.

Hypothesis 3 was also rejected for the final independent variable, internal-external locus of control (IE) which was found to be statistically significant beyond the .000 two-tailed probability level with a critical $t$ of -3.684, a standard error of 0.211, and a coefficient of 0.778.

Summary of analyses.

Principal component factor analysis performed on 23 budget participation items yielded 3 budget factors to be used for analysis as independent variables: decision influence, establishing content, and altering content.

Multiple regression analyses was performed on the scaled scores from the 3 budget variables, total scores from the I-E Scale (locus of control), and total scores from the MSQ (the dependent variable, job satisfaction).

No relationships with job satisfaction were found due to interactions of principals' locus of control and budget participation. Hypothesis 1 was therefore not rejected.

No relationships with job satisfaction were found for 2 of the 3 remaining budget variables, establishing content and altering content.
Hypothesis 2 was therefore not rejected for these two budget-related variables. Hypothesis 2, however, was rejected for the only remaining budget-variable, decision influence. A statistically significant relationship was found to exist between principals' level of decision influence and job satisfaction.

A statistical relationship was also found to exist between principals' internal-external locus of control and job satisfaction. Hypothesis 3 was therefore rejected.

In summary, there were statistically significant relationships found between decision influence and job satisfaction and between locus of control and job satisfaction. Those principals who perceived they were highly involved in decision influence showed higher job satisfaction. Those principals who were more internal in their locus of control orientation also were more satisfied in their jobs than those whose locus of control was external.
Chapter 5

Conclusions, Discussion and Recommendations for Further Research

It was the intent of this study to investigate the relationship between principals' extent of participation in budgeting, locus of control, and job satisfaction. The importance of participation in budgeting for managers and its relevance to job satisfaction has been the subject of a number of studies over the last several decades. The extent of participation in budgeting for this study was measured by a questionnaire substantially modified from one developed by Small (1979). In addition, the belief systems of such managers appear to constitute a significant influence on the attitudes they hold in various social situations. The personality variable, locus of control, utilized in this study and first introduced by Rotter (1966), refers to the individual's perceptions of events in his/her life as consequences of his/her own actions (internal control), or the result of such forces as luck, fate, or powerful others (external control). Rotter's I-E Scale was used to assess the internality-externality of principals in this study. Job satisfaction for principals was determined as a result of scores on the short form of the Minnesota Satisfaction Questionnaire (Weiss, et. al., 1977).

The design of this study was that of correlational research. Its principal advantage was that it allowed this researcher to analyze the relationships among a large number of variables in this single study and to
see how several variables, either singly or in combination, might affect a particular pattern of behavior (Borg, 1983).

The study involved 191 K-12 principals who completed and returned survey instruments out of the original stratified sample of 250, representing an overall mail return rate of 76%. School divisions represented ranged from small (less than 1,000 students) to very large (more than 100,000 students) and included schools of less than 200 to more than 1,000 pupils. Nearly 80 percent of the principals surveyed had at least 5 years of administrative experience.

The hypotheses investigated in this study, stated in null form, were:

**Hypothesis 1:** There is no significant relationship (p < .05) between the level of job satisfaction and principals' locus of control, extent of participation in budgeting, or their interaction.

**Hypothesis 2:** There is no significant relationship (p <.05) between the extent of principals' participation in budgeting and level of job satisfaction.

**Hypothesis 3:** There is no significant relationship (p< .05) between principals' internal-external locus of control and level of job satisfaction.

The three hypotheses were tested by means of three statistical procedures. Responses to the Budgeting Participation Questionnaire were factor analyzed in order to determine whether or not relatively independent factors were part of the measurement. The results of the factor analysis dictated that three budget subscales (decision influence, establishing content, and altering content) were to be considered as independent variables in the subsequent multiple regression analyses used to test the research hypotheses. The Pearson correlation technique was also used to confirm the use of the selected budget factors as independent variables.
These analyses were thus used to help the researcher better understand the theoretical composition of the budgeting participation construct and to verify reliability of the Budgeting Participation Questionnaire.

The final stage of data analysis consisted of creating a prediction equation for the dependent variable, job satisfaction. The dependent variable, job satisfaction and the independent variables, locus of control and the 3 budgeting participation subscales along with their interactions were subjected to a multiple regression analysis.

Hypothesis 1 was concerned with statistically testing whether or not there was a relationship between level of job satisfaction and the interactions of principals’ locus of control and budget participation. Contrary to the research approach which assumes that explanations of satisfaction require the simultaneous use of both work role and personality variables, no such interactions were found to exist. For purposes of this study, then, the notion must be discounted that job satisfaction can be seen as the result of the interaction of a budget-related job factor and locus of control. Hypothesis 1 was therefore not rejected.

Hypothesis 2 was not rejected for 2 of the 3 budget variables derived from factor analysis, establishing content and altering content, as no significant relationships were found to exist. Hypothesis 2, however, was rejected for the only remaining budget-related variable, decision influence. Consistent with findings by Small (1979) and Shipley (1983), those principals who felt they had influence on what went into budgeted items, who felt they could get their ideas across to their superiors, who felt their opinions were requested, and who felt if they had a suggestion for increasing or decreasing a budget item they would be listened to, experienced greater job satisfaction. A statistically
significant relationship in this study was found to exist between principals' level of decision influence and job satisfaction. Those principals who perceived they were highly involved in decision influence as a group tended to be higher job satisfaction.

Hypothesis 3 was also concerned with whether a relationship existed between principals' locus of control and job satisfaction. A statistical relationship was found to exist between principals' internal-external locus of control and job satisfaction. High negative correlations confirmed that the lower the I-E score (the more internal) the higher the job satisfaction score. Those principals who were more internal in their locus of control orientation as a group tended to be more satisfied in their jobs than those whose locus of control was external. Hypothesis 3 was therefore rejected.

Conclusions

The following conclusions are based on the findings of this study.

1. There were no interactions among the independent variables which related to job satisfaction. In this study, none of the budget-related work facets interacted with each other or with the personality variable, locus of control.

2. Those principals who reported they had influence over what went into their budget, (a) believed they could influence the decisions of their superiors, (b) felt that they were asked for their opinions by their superiors, (c) were able to get their ideas across, and (d) experienced greater job satisfaction than those who did not. It was concluded that the greater the perception of being able to exercise decision influence in budgeting, the more satisfied the principal.
3. The extent of participation cited by principals in establishing and/or altering budgeted content items (such as educational, custodial, and office supplies, instructional equipment, library books and equipment, and school building improvements) bore no reported relationship to job satisfaction. It was concluded that no relationship existed between the level of participation a principal reported in establishing amounts budgeted for areas of his/her building's budget and his/her job satisfaction. Likewise, a principal's personal control over the altering of an established school budget through transfers or other means bore no relationship to job satisfaction for the principal.

4. An inverse relationship (negative correlation) existed for those principals who as a group were internal in their locus of control (low scores on Rotter's I-E Scale); as a group they rated higher in job satisfaction scores than those with high I-E scores (externally-oriented).

Discussion

The evidence garnered from principal component factor analysis and multiple regression analysis in this investigation supported the following conclusions: (a) that there were no relationships found in the level of job satisfaction due to the interaction of locus of control and extent of budget participation; (b) decision influence was the only budget-related variable found to have a statistically significant relationship to job satisfaction; (c) locus of control was also found to have a statistically significant relationship to job satisfaction. While these were the two statistically significant results found in this study, there are further practical points worthy of discussion.

Use of the principal component factor analysis technique proved quite useful in determining the theoretical makeup of the budgeting participation
construct. Earlier studies in the area of budget participation dealt rather globally with the construct, failing to break budgeting participation into any component parts. Small (1979) came closest to doing this by dividing budgeting into two general areas, extent of influence in budget-making and extent of participation in budget-making. He attempted to establish content validity for his budget participation instrument in two ways: (a) by review of the relevant literature and (b) by expert validation. However, Small's (1979) failure to report any reliability data represented a significant methodological flaw, particularly since so many of his assumptions rested upon its use.

The present researcher, though retaining much of the original Small (1979) instrument, albeit re-scaled, added a totally new area, decision involvement. In reviewing the previous literature, it appeared that the process of budgeting (planning, formulating, advocating, administering, and reviewing) had been omitted by Small (1979). Adding this area, however, proved superfluous, as during factor analysis it appeared generally reflective of all other items in the instrument. This made sense, as decision involvement and participation are hardly distinguishable as concepts.

Small had enumerated 12 "situations" which the present researcher narrowed to seven areas, and which were deemed to be the content areas of a school budget. Small had looked at the "situations" in terms of "actual" versus "desired" roles of the principal. The present researcher deemed participation of the principal with regard to these seven content areas as critical in two different ways: (a) establishing budget content, and (b) altering budget content. After subjecting the budget questionnaire items to
principal component factor analysis, these two variables remained along with the decision influence area originally established by Small (1979).

Written comments by some of the respondents tended to focus on areas not contemplated when the study was undertaken: a number of principals wrote in references to school-based management models (with site-based budgeting) which they indicated their school systems were either in the process of or had already implemented. A review of the "school-based management" subset revealed that those principals ranked high in budgeting participation.

A number of other principals commented that certain items (such as instructional supplies) in their budgets were "fixed" by a per-pupil allocation given them by the central office, and that they had no discretion as to establishing or altering the content of such budget area. This led the researcher to question the extent to which other school division budgets may be tied to centrally-based bureaucratic models.

The present study attempted to follow Vroom's (1959) suggestion that the interaction of both personality and environmental variables must be systematically examined in any efforts to fully explain behavior. Although present results failed to demonstrate an interaction between the independent variables, data did in fact affirm the potential usefulness of both personality and environmental factors in the explanation of job satisfaction.

**Implications**

Caution should be exercised in interpreting the statistical significance of the relationship found between locus of control and job satisfaction and decision influence and job satisfaction (squared multiple \( R^2 = .177 \)). However, when one examines the fact that participation in
budgeting is only one of many important job facets found in the work environment of principals, the additive effect of these could be helpful in explaining variability in job satisfaction.

The practical significance of the findings is that only the two variables associated with how a person feels about his/her ability to influence outcomes (locus of control and decision influence) were the ones which related statistically to job satisfaction. Perceptions of events either as consequences of personal actions or of external forces or powerful others, and beliefs involving one's extent of decision influence may account more for how satisfied a person is than job facets like participation in budgeting. As has been seen, the relationship of decision-making to job satisfaction was reported similarly in several earlier studies (Morse and Reimer, 1956; Vroom, 1959) where it was revealed that a significant relationship existed between decision influence and job satisfaction. Thus, the first major implication of the study involves increasing the opportunities for principals to provide input to and gain feedback from their superiors in regard to making decisions, as this may serve to enhance job satisfaction.

In addition, a review of the literature concerned with locus of control and job satisfaction confirms the same relationship found in this study: that internals perceived their jobs more favorably than do externals (Organ and Greene, 1974; Lester, 1982; Manning and Fullerton, 1988; Shukla and Upadhyaya, 1986; Szilagyi, Sims, and Keller, 1976). Therefore, a second major implication of the study is that if superintendents and school boards are seeking principals who will be more satisfied with their jobs and thus, possibly be more effective principals, they should be aware of the contribution of personality factors such as locus of control.
Recommendations for further research

1. Perceptions and beliefs may account more for how satisfied a person is than job facets. In order to confirm this, it is recommended that future researchers should replicate this study by substituting other job facets (in place of budgeting participation) which may be deemed critical to the performance of school principals. Replications might include job facets such as personnel management, curriculum scheduling, community relations, or instructional supervision as well as other relevant personality dimensions.

2. When this investigation was conducted it was assumed that it involved a largely bureaucratic sample. Future investigators should study whether the same results would occur if the study only included principals representing decentralized site-based budgeting models.

3. A review of the related literature points out other possibilities for further investigation. As has already been demonstrated, one researcher (Schneider, 1984) sees budgeting participation as an important job facet for other school-based stakeholders as well as the principal. In addition, Knoop (1981) found that internally-oriented teachers held more positive attitudes in terms of job satisfaction and participation in decision making than did externals. Therefore, in view of the results of both of these and of the present study, an investigation should be conducted to determine if there exists a relationship between teachers' participation in school level budgeting, locus of control and job satisfaction.
References


Microsoft, Inc. (1989). *Excel 2.2*.


APPENDICES
**PERSONAL /DEMOGRAPHIC DATA**

Please circle the number of the appropriate response to the following questions:

1. **Sex**
   - 1. Male
   - 2. Female

2. **Years as a principal or assistant principal**
   - 1. 0 - 1 year
   - 2. 2 - 4 years
   - 3. 5 - 8 years
   - 4. 9 - 13 years
   - 5. More than 13 years

3. **Years as a principal at your present school**
   - 1. 0 - 1 year
   - 2. 2 - 4 years
   - 3. 5 - 8 years
   - 4. 9 - 13 years
   - 5. More than 13 years

4. **Size of school division**
   - 1. 0 - 1,000 pupils
   - 2. 1001 - 5,000 pupils
   - 3. 5001 - 10,000 pupils
   - 4. 10,001 - 20,000 pupils
   - 5. 20,001 - 50,000 pupils
   - 6. 50,001 - 100,000 pupils
   - 7. Over 100,000 pupils

5. **Size of your school building or buildings (include all annexes)**
   - 1. 0 - 200 pupils
   - 2. 201 - 400 pupils
   - 3. 401 - 600 pupils
   - 4. 601 - 800 pupils
   - 5. 801 - 1000 pupils
   - 6. More than 1000 pupils

6. **Lowest grade in your school** (circle one)
   - PRE-K
   - K
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10
   - 11
   - 12
   - Other

7. **Highest grade in your school** (circle one)
   - PRE-K
   - K
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10
   - 11
   - 12
   - Other

8. **List any distinguishing characteristics about the organization level of your school you wish to add.** (Please write in any special comments - i.e., open, model, spec. ed., etc.) Feel free to add any additional comments about this survey as well. Also, if you desire a copy of the results of this survey, so indicate. If you need additional space, please use the back of this page to do so.
# BUDGETING PARTICIPATION QUESTIONNAIRE

## EXTENT OF PARTICIPATION IN THE BUDGET CYCLE

### A. EXTENT OF DECISION INFLUENCE

| 1. In general, how much **SAY** or **INFLUENCE** do you personally have on what goes into budgeted items in your school? |
| 2. Do you feel **YOU** can influence the decisions of your **SUPERIORS** regarding budgeted items about which you are concerned? |
| 3. Do your **SUPERIORS** ask your **OPINION** when a problem comes up which involves items budgeted for your schools? |
| 4. If you have a suggestion for an **INCREASE** or **DECREASE** in the budgeted items that affect your school in some way, **TO WHAT EXTENT** are you able to get your ideas across to your **SUPERVISORS**? |

### B. EXTENT OF DECISION INVOLVEMENT

| 1. To what extent do you personally participate in making your **SCHOOL'S PLANS** become a part of the budgeting process? |
| 2. To what extent do you personally participate in the **FORMULATION** stage (submission of requested items) of the school budget? |
| 3. During the development of the school district budget, to what extent do you personally **ADVOCATE** (speak out and/or lobby for) budgeted items for which you are concerned? |
| 4. Once the school budget has received final approval, to what extent do you personally exercise control over its **ADMINISTRATION**? |
| 5. To what extent do you personally participate in **REVIEWING** or analyzing data and identifying probable resources as a basis for budgeting? |
PART ONE  BUDGETING PARTICIPATION QUESTIONNAIRE  
SECTION II  EXTENT OF PARTICIPATION IN ESTABLISHING AND ALTERING THE SCHOOL LEVEL BUDGET CONTENT

This section is designed to obtain the extent to which you actually participate in budget-making decisions regarding seven BUDGET CONTENT items which might occur in your school's budget. Please respond by circling the number which corresponds to the best answer for each situation.

C. ESTABLISHING BUDGETED CONTENT for your building:

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<th></th>
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<th>Uncertain</th>
<th>Frequently</th>
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<td>4</td>
<td>5</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Instructional equipment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Library books</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Library equipment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Custodial supplies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. School plant improvements</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

D. ALTERING BUDGETED CONTENT for your building:

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<thead>
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<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Uncertain</th>
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<tr>
<td>1. Educational supplies</td>
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<td>2. Office supplies</td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>3. Instructional equipment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Library books</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Library equipment</td>
<td>1</td>
<td>2</td>
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<td>1</td>
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<td>7. School plant improvements</td>
<td>1</td>
<td>2</td>
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</tr>
</tbody>
</table>
PART TWO  ROTTER'S I-E SCALE
This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Choose either a or b. Circle one (and only one) item which you choose as the statement more true for each numbered pair.

In some cases you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

1.a. Children get into trouble because their parents punish them too much.
1.b. The trouble with most children nowadays is that their parents are too easy with them.

2.a. Many of the unhappy things in people's lives are partly due to bad luck.
2.b. People's misfortunes result from the mistakes they make.

3.a. One of the major reasons why we have wars is because people don't take enough interest in politics.
3.b. There will always be wars, no matter how hard people try to prevent them.

4.a. In the long run people get the respect they deserve in this world.
4.b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.a. The idea that teachers are unfair to students is nonsense.
5.b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.a. Without the right breaks one cannot be an effective leader.
6.b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.a. No matter how hard you try some people just don't like you.
7.b. People who can't get others to like them don't understand how to get along with others.
PART TWO

PERSONAL VIEWS ON IMPORTANT EVENTS (cont'd)

8.a. Heredity plays the major role in one's personality.

8.b. It is one's experiences in life which determine what they're like.

9.a. I have often found that what is going to happen will happen.

9.b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10.a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

10.b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11.a. Becoming a success is a matter of hard work, luck has little or nothing to do it.

11.b. Getting a good job depends mainly on being in the right place at the right time.

12.a. The average citizen can have an influence in government decisions.

12.b. This world is run by the few people in power, and there is not too much the little guy can do about it.

13.a. When I make plans, I am most certain that I can make them work.

13.b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune.

14.a. There are certain people who are just no good.

14.b. There is some good in everybody.

15.a. In my case getting what I want has little or nothing to do with luck.

15.b. Many times we might just as well decide what to do by flipping a coin.

16.a. Who gets to be boss often depends on who was lucky enough to be in the right place first.

16.b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

17.a. As far as world affairs are concerned, most of us are the victims of forces we neither understand, nor control.

17.b. By taking an active part in political and social affairs the people can control world events.
PART TWO  PERSONAL VIEWS ON IMPORTANT EVENTS (cont'd)

16.a. Most people don't realize the extent to which their lives are controlled by accidental happenings.

18.a. There is really no such thing as "luck."

18.b. There is really no such thing as "luck."

19.a. One should always be willing to admit mistakes.

19.b. It is usually best to cover up one's mistakes.

20.a. It is hard to know whether or not a person really likes you.

20.b. How many friends you have depends upon how nice a person you are.

21.a. In the long run the bad things that happen to us are balanced by the good ones.

21.b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22.a. With enough effort we can wipe out political corruption.

22.b. It is difficult for people to have much control over the things politicians do in office.

23.a. Sometimes I can't understand how teachers arrive at the grades they give.

23.b. There is a direct connection between how I study and the grades I get.

24.a. A good leader expects people to decide for themselves what they should do.

24.b. A good leader makes it clear to everybody what their jobs are.

25.a. Many times I feel that I have little influence over the things that happen to me.

25.b. It is impossible for me to believe that chance or luck plays an important role in my life.

26.a. People are lonely because they don't try to be friendly.

26.b. There's not much use in trying too hard to please people; if they like you, they like you.

27.a. There is too much emphasis on athletics in high school.

27.b. Team sports are an excellent way to build character.

28.a. What happens to me is my own doing.

28.b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29.a. Most of the time I can't understand why politicians behave the way they do.

29.b. In the long run the people are responsible for bad government on a national as well as a local level.
Dear Colleague:

I am writing to request your assistance. Would you be kind enough to take ten minutes or less to fill out the enclosed questionnaires? These questionnaires are designed to collect information which will be used in my doctoral dissertation at the College of William and Mary.

The enclosed survey instruments are designed to provide insight into the relative importance of budgeting participation for school principals. This study should benefit school principals specifically and students of administration generally.

All responses to these instruments will be kept entirely confidential. Names of principals and their schools will not be included in any publication of the results of the study. Although full answers to all questions are sought, please do not feel obligated to answer any questions you feel are intrusive.

As a former school principal, I respect the time demands upon your position. I would like to thank you in advance for taking the time to fill out and return these questionnaires. If you would like a summary of these findings, please indicate by noting your name and address below.

Best wishes to you!

Very truly yours,

Harold L. Cothern
Director of Information Services
Richmond City Schools
Richmond, Virginia

(name)

(address)

Enclosures
Dear Colleague:

Several weeks ago I wrote to you requesting your assistance in filling out a questionnaire designed to collect information which will be used in my doctoral dissertation. It is very important in analyzing the results of the study that I receive an adequate return. If you have already mailed the questionnaire back to me, please ignore this request. If not, I am enclosing another questionnaire for your convenience along with a self-addressed, stamped envelope.

The enclosed survey instruments are designed to provide insight into the relative importance of budgeting participation for school principals. This study should benefit school principals specifically and students of administration generally.

All responses to these instruments will be kept entirely confidential. Names of principals and their schools will not be included in any publication of the results of the study.

As a former school principal, I respect the time demands upon your position. I would like to thank you in advance for taking the time to fill out and return these questionnaires. If you would like a summary of these findings, please indicate by noting your name and address below. Once again, thank you for helping a fellow colleague.

Very truly yours,

[Signature]

Harold L. Cothern
Director of Information Services
Richmond City Schools
Richmond, Virginia

(name)

(address)

Enclosures
February 1, 1990

Julian B. Rotter  
Department of Psychology  
U-20, University of Connecticut  
Storrs, Connecticut 06269-1020

Dear Dr. Rotter:

I spoke to your secretary on the phone yesterday requesting your permission to use the I-E Scale in my dissertation research. I am a doctoral student at the College of William and Mary in Virginia in the School of Education. My advisor is Dr. James Stronge, and the title of my dissertation is "A Study of the Relationship Between Principals' Extent of Budgeting Participation, Locus of Control, and Job Satisfaction.

My use of the instrument would be restricted to the dissertation research only, and my committee includes Dr. John Lindstrom who is a psychologist licensed by the Virginia Board of Psychology, and is familiar with the use and interpretation of personality instruments.

I thank you for your help and earliest notification, and wish you continued success in your future endeavors.

Very truly yours,

Harold L. Cothern
February 14, 1990

Harold L. Cothern
10918 Foxmoore Avenue
Richmond, VA 23233

Dear Mr. Cothern:

You have my permission to reproduce and use the I-E Scale for your dissertation research.

Very truly yours,

Julian B. Rotter
Professor of Psychology
February 1, 1990

Dr. Ronald Small
College of Education
Governor State University
Governor Highway
Sluenkil Road
University Park, Illinois 60466

Dear Dr. Small:

What a pleasure to talk to you on the phone yesterday. Thank you for allowing me to use your budget participation scale for my dissertation research. Would you please put that in writing to me, if you have not already done so? Would you also send me your follow-up research you spoke about as well?

I will send you a copy of my proposal as soon as my committee has approved it. Hopefully this will be very shortly. Also, I am sending you the citation for the Shipley (1984) dissertation we discussed. Thank you again. I hope this will begin a mutual correspondence which may help us and future researchers in the area of school budgeting.

Very truly yours,

Harold L. Cothern
Dear Harold,

I enjoyed the telephone conversation regarding your research activities. I have enclosed the paper that I presented last spring at the Eastern Educational Research Conference, which compares the study that I did in 1978 with a repeat study in 1988. I have also enclosed the tables for that study.

As you requested, you have my permission to use the survey instruments that I developed. If you wish to modify them, please feel free to do so. Good luck in your endeavors.

Sincerely,

Ron Small
University Professor in Educational Administration
Table 8

**Means and standard deviations for decision involvement, decision influence, establishing content, altering content, IE, and job satisfaction**

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<tr>
<td>Decision involvement</td>
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<tr>
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<td>Job satisfaction</td>
<td>81.20</td>
<td>11.21</td>
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</tbody>
</table>
Vita

Harold Louis Cothern

Birthdate:  June 15, 1947

Birthplace:  Petersburg, Virginia

Education:

1984-1988  The College of William and Mary
           Williamsburg, Virginia
           Educational Specialist

1973-75  Virginia Commonwealth University
          Richmond, Virginia
          Master of Education

1966-70  The College of William and Mary
          Williamsburg, Virginia
          Bachelor of Arts

Professional Experience:

1989-  Director of Information Services
       Richmond City Schools
       Richmond, Virginia

1988-89  Supervisor, Budget and Planning
         Richmond City Schools
         Richmond, Virginia

1985-88  Supervisor, Computer-Based Education
         Richmond City Schools
         Richmond, Virginia

1975-85  Elementary Principal
         Southampton County, Virginia
         Isle of Wight County, Virginia
         Petersburg, Virginia

1970-75  Teacher, English and Speech
         Middle and High School
         Charlotte County, Virginia
         Colonial Heights, Virginia