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An investigation of secondary teachers' motivation orientation and their attitudes about extrinsic incentives

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AN INVESTIGATION OF SECONDARY TEACHERS' MOTIVATION ORIENTATION AND THEIR ATTITUDES ABOUT EXTRINSIC INCENTIVES

by

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An Investigation of Secondary Teachers' Motivation Orientation and Their Attitudes About Extrinsic Incentives

BY

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GRADUATE COLLEGE
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AN INVESTIGATION OF SECONDARY TEACHERS' MOTIVATION ORIENTATION AND THEIR ATTITUDES ABOUT EXTRINSIC INCENTIVES

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Advisor: Donald F. Uerling

The researcher's purpose in conducting the study was to determine the motivation orientation of secondary public school teachers and whether there was a predictive relationship between their orientation and their attitudes about extrinsic incentives offered by school systems. Additionally, the variables of gender, building level configuration, metropolitan/surburban area, level and degree of educational experience, years of teaching experience, and required/elective subject area and how these variables affect teachers' attitudes about extrinsic incentives offered by school systems were also considered.

The population surveyed included a representative sample of metropolitan and suburban secondary teachers in Nebraska Public School systems. The teachers were surveyed to determine their motivation orientation and

their attitudes about extrinsic incentives offered by school systems. The survey employed two instruments. The first part of the survey was an existing instrument measuring the independent variable, motivation orientation. The second part of the survey was designed by the researcher to measure the dependent variable, attitudes about extrinsic incentives.

Data were analyzed for the 250 respondents using multiple regression. The researcher used this technique to address the predictive relationship between the changes in the dependent variable as a result of the relationships of the independent variables.

Four out of five teachers surveyed had an extrinsic motivation orientation. There was a significant relationship ($p<.05$) between a teacher's motivation orientation and his or her attitude toward extrinsic incentives offered by school systems with $F=.00$. Teachers who indicated an extrinsic motivation orientation indicated the highest level of motivation by extrinsic incentives.

Extrinsic incentives ranked as the most motivating were (1) health insurance, (2) job security, (3) competitive salary, (4) financial support for workshops and classes, and (5) life insurance.

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To my mother and father, I would like to express my deep gratitude for developing the seeds of a desire to learn and grow and be successful. Childhood values were instilled in me which have helped shape my love of education, developed within me a strong work ethic and provided a spiritual foundation upon which I may base all of what I am and will become.

I also want to express appreciation to my husband, Chuck, for his encouragement and patience as I have labored to complete my course of study and this dissertation and to my children, Meredith, Natalie, and Megan, who have encouraged me to stay with it because they knew I could do it. I am grateful for and proud of their desire to support me in this endeavor. I hope that my actions will help them understand the importance of an education, personal goals and aspirations, and a willingness to persevere to reach an end.

Judy E. Porter

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INTRODUCTION

Context of the Problem

School boards, communities, school systems, and administrators are interested in what motivates teachers to excel as professionals and in the classroom. Many teachers do not continue to grow and achieve as professionals. This may occur for many reasons. One of the reasons may be a lack of motivation to continue to grow professionally and to improve teaching skills. Frymier (1987) defined motivation as "that which gives direction and intensity to human behavior." Motivation theories suggest that there are two types of motivation, (1) intrinsic motivation and (2) extrinsic motivation (Maslow, 1943, 1970; Herzberg, 1959). Maslow (1943, 1970) postulates that intrinsic motivation is based upon rewards or satisfaction that one experiences internally, while Herzberg (1959) indicates that extrinsic rewards are those that can be given by another. School systems continue to try to provide extrinsic incentives to teachers to motivate them to grow professionally and to improve teaching skills. Knowledge of how a teacher is

oriented toward a motivation type, and what factors he or she may value to enhance their motivation, may enable a school system to better link those factors to the teachers' work environment to increase their motivation to grow professionally and improve teaching skills.

There is an understanding that people are complex and that their individual motivations vary. Determining ways to motivate people has been a focus of research for many years. Terpstra (1979) discussed research focusing extensively on development and testing of motivation theories. Schaps and Lewis (1991), Dickinson (1989), and Zberzezny (1989) focused on the value and effects of extrinsic rewards in education. Which incentives work with teachers and how teachers' orientations toward types of motivation may effect their attitudes about extrinsic rewards are not yet completely known.

Programs of reward and recognition are numerous (Grace, 1987; Klesse, 1989; Sederberg et al., 1990), and various degrees of success are reported in journals and papers in reference to these programs. These researchers examined programs for their overall effectiveness, but a link between types of motivated teachers and the importance of extrinsic rewards to them is relatively unexplored.

The problem leading to this study is that extrinsic incentives for teachers exist, but we do not know which work and we do not know how different teachers' orientations toward motivation affects how the teachers feel about receiving extrinsic rewards.

Through this study, the researcher attempted to examine the motivation orientation of secondary school teachers and their attitudes about extrinsic incentives offered by school systems. The study was also designed to determine whether a teachers orientation toward extrinsic or intrinsic types of motivation has a predictive relationship to the teacher's attitudes about extrinsic incentives offered by a school system.

The researcher attempted to determine the motivation orientation held by secondary teachers in a metropolitan Nebraska public school system and surrounding suburban public school systems and how their motivation orientation affects their attitudes about extrinsic incentives. The study of this area of motivation will be of benefit to education by extending the scope of literature related to the use of extrinsic incentives. It will add to the body of knowledge on motivation by examining the area of individual motivation orientation of secondary teachers and how it

may affect their attitudes about extrinsic incentives offered by school systems. The results of examining this aspect of motivation and incentives suggest ways in which specific incentives may motivate teachers holding a particular motivation.

Statement of the Problem

The intent of the researcher was to determine the motivation orientation of secondary public school teachers in a metropolitan Nebraska public school system and in surrounding suburban public school systems and whether there was a predictive relationship between their orientation and their attitudes about extrinsic incentives offered by school systems. Additionally the study was designed to determine whether there was a predictive relationship between their gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area and their attitudes about extrinsic incentives offered by school systems.

Definition of Terms

The definition of terms used in the study were those as they were commonly used in the literature concerning motivation, extrinsic incentives, and intrinsic incentives as they applied to school populations.

Attitudes

The degree of feeling toward a particular subject or question.

Extrinsic Incentive

Reward or recognition given by another to an individual or group based on a level of performance on a task or objective (Herzberg, 1959).

Intrinsic Incentive

Internal experiences including feelings of self worth, accomplishment, or satisfaction (Csikszentimihalyi, 1982).

Motivation

Motivation is that which gives direction and intensity to human behavior (Frymier, 1987).

Motivation Orientation

The tendency of a teacher to respond to factors or values in the outside environment and inside the individual, as measured by a motivation orientation instrument.

For the purposes of this study, motivation orientation was associated with the preference a teacher indicates toward extrinsic or intrinsic incentives offered by school systems. Attitudes toward extrinsic incentives offered by school systems was determined by the degree to which extrinsic incentives appeal to the teachers in the study.

Delimitations and Limitations of the Study

The following limitations have governed this study.

1. The population for this study was secondary public school teachers from a Nebraska metropolitan school system and surrounding suburban school systems during

the 1992-93 school year. The population comprised approximately 2500 teachers, grades 7-12.

2. To measure the independent and dependent variables, the procedures employed in this study involved two combined survey instruments, including the Job Attitude Scale (Saleh, 1971, 1988) and a researcher-designed instrument.

3. Conclusions from the study may be applicable only to similar teacher populations in terms of ethnic make-up, socio-economic status, years of teaching experience, gender, level and degree of preparation, building level configuration, and required/elective subject area.

4. The measures of motivation orientation and attitudes toward extrinsic incentives offered by school systems were subject to the accurateness of the respondents to the instrument.

5. The study was subject to those weaknesses inherent in survey research methodology.

Significance of the Study

Theoretical Significance

The study's theoretical significance is to add to the existing literature about motivation and the use of

extrinsic incentives in school systems. The body of knowledge about motivation will be expanded by examining the types of motivation orientation held by secondary teachers and how this orientation affects their attitudes about extrinsic incentives offered by school systems.

Practical Significance

The practical significance is in determining a teacher's motivation orientation and in using this information to select extrinsic incentives that may have an impact on improving a teacher's performance. A teacher oriented in a particular direction, toward extrinsic or intrinsic motivation, matched with a specific incentive valued by the teacher, may improve his or her motivation to grow professionally and teach well.

Chapter II

REVIEW OF THE LITERATURE

Introduction

The review of literature was conducted to examine major research concerning motivation theories and reinforcement theory as they apply to extrinsic and intrinsic incentives that may be offered to employees in order to motivate them to perform well. Prevalent findings regarding extrinsic and intrinsic motivation practices and their impact on employees will be cited. Incentives employed by school systems will be presented and their relative success will be noted.

Motivation Theories

Grace (1987) indicated that so many theories exist concerning motivation, rewards, incentives, and their effects on performance and behavior that it is neither feasible nor practical to advance a unified theory of motivational behavior. Several theories do provide plausible explanations.

Maslow (1943, 1970) forwarded a theory on motivation based on a hierarchy of needs. These needs include deficiency needs of physiology, safety, love, and belonging as well as higher level needs of self-

actualization, and the need for aesthetic appreciation and contribution. This theory suggests that gratification has an important role in motivation. The values and motivation orientation of an individual would determine individual needs. He concluded that deficiency needs must be satisfied before higher level needs can be met. Thus, teachers whose deficiency needs are not being met will be less likely to be motivated to improve than will teachers who have these lower order needs satisfied. Conversely, teachers whose deficiency needs are being met are more ready to seek satisfaction from gaining new knowledge and experiencing personal growth.

Teachers may have particular needs, satisfied or unsatisfied, that motivate them to seek academic settings that are more closely linked with Maslow's hierarchy of needs. They may seek an academic setting near their home or where they may be able to conduct research that further their needs of self-actualization (Schneider & Zelesny, 1982).

Herzberg's Motivation Hygiene Theory proposed that employee motivation depends primarily on employees' sense of (a) the significance of their work, (b) achievement in their work, (c) recognition for accomplishments, (d) responsibility given to them, and

(e) advancement in their profession. (Herzberg et al., 1959). Herzberg postulated that these satisfiers are found to be effective in motivating the individual to superior performance and effort. He indicated that at the psychological level, two dimensions were needed to provide a need structure--one need system for the avoidance of unpleasantness, and a parallel need system for personal growth.

The concept that satisfaction on the job is related to a combination of extrinsic motivators, such as types of supervision and the environment, and intrinsic motivators, such as public recognition and prestige, is the fundamental of the "Dual Factor" or "Motivation-Hygiene Theory" (Herzberg et al., 1959). The value is in the concept of job satisfaction--enriching the job through opportunity for achievement, recognition, and responsibility.

Stanton (1983) reported that applications of both Maslow's and Herzberg's theories indicate that motivation can be addressed in the areas of (a) recruitment and selection, (b) training and development, (c) performance appraisal, (d) supervision, and (e) compensation.

Brayfield and Crockett (1955) concluded that individual differences in motivations and perceptions must be considered when developing methods to motivate individuals. Their findings cited that individual motivation orientations may come from a desire to increase status and social standing and to provide a higher level of living.

The work of Lawler (1969) and Hackman and Oldham (1975) offered a conceptual model which postulates that motivation is the result of a situational-personal interaction. In their framework, internal motivation is a function of the interaction between an employee's desire for higher-order need satisfaction and the job itself. The job content is considered in terms of four core dimensions--variety, autonomy, task identity, and feedback.

Steers and Porter (1975) cited the need-achievement theory, which indicates that a major portion of an individual's will to perform can be explained or predicted by the intensity of his or her need for achievement. The basis or reward for such a motive is posited to be the positive effect associated with successful performance (McClelland, 1971).

Studies describing the "expectancy theory" suggested that teachers may set low expectations for themselves because of fear of failure, or set unrealistically high goals thereby "setting themselves up" to fail. Human beings develop a need for achievement and a contrasting need to avoid failure (McClelland, 1961; Atkinson, 1964). The result, according to this theory, is that while some people derive pleasure from achieving success, thus motivating them to work to achieve success, other people become highly anxious at the prospect of failure and may set goals for themselves that are easy to achieve in order to avoid failure.

Because expectancy theory explains behavior in terms of perceptions regarding job outcomes, it is primarily a theory of extrinsic motivation.

Psychologists and educators, as well as those in other work environments, have displayed an interest in the way humans are motivated to perform.

The VIE theory of Vroom (1964), in his book Work and Motivation, assumed that motivation is a function of three components:

(1) Effort - - - - > Performance (E - - - - > P) refers to the individual's perception of the chances that increased effort will lead to good performance.

(2) Performance - - - -> Outcome (P - - - -> 0) refers to the individual's perception of the chances that good performance will lead to certain outcomes or rewards.

(3) Valence, which refers to the value or attractiveness of a given outcome or reward to the individual.

Vroom theorized that when an individual exhibits a "motivational deficit" in any of the three components, motivation can be enhanced as follows:

(1) For a deficit in the effort - - > performance component, the motivator must increase the subject's self esteem and confidence.

(2) For a deficit in the performance - - > outcome component, the motivator can link outcomes more directly to performance (e.g. incentive plans, promotion, merit based rewards).

(3) For a deficit in the Valence or value or reward component, the motivator can identify relevant and valued outcomes or rewards.

In Vroom's cognitive model of motivation, money acquires valence as a result of its perceived instrumentality for obtaining other desired outcomes. For example, if money is perceived by a given person as

an instrument to obtaining security and if security is desired, money itself acquires positive valence.

The concept of valence suggests that it is necessary to give careful attention to the interaction between job and personal variables.

Vroom (1964) cited evidence supporting his valence theory from experiments by Atkinson (1958), Atkinson and Reitman (1956), and Kaufman (1962) showing a higher level of performance by subjects who were told that their earnings were contingent on the effectiveness of their performance.

Mitchell et al. (1987) stated that the probability theory indicates that the flow of rewards is often imperfectly linked to the performance of an action and that individuals may not know exactly what consequences will follow from specific actions. Therefore, incentives are sometimes thought to be "discounted" by the probability that they will not actually be received once the required actions have taken place.

Other theories that pertain to motivation come from behaviorists who addressed the methods of effecting behavior through the reinforcement of desired behaviors.

Reinforcement Theory

Skinner's theory of behaviorism (1953) emphasized the importance of reinforcement in motivation. His reinforcement theory is based on the premise that behavior that is reinforced tends to repeat itself. The behaviorist point of view emphasizes extrinsic reward to reinforce or to motivate.

This theory emphasizes extrinsic rewards as a reinforcment technique to induce people to behave in a desired way.

Skinner (1971) indicated that it is the task of a scientific analysis to explain how the behavior of a person is related to the conditions under which the person evolved and the conditions under which the individual lives. Knowledge of and even manipulation of the environment in which an individual lives will aid in knowing which extrinsic incentives will induce people to behave in a desired way.

Sever and Westcott (1983) described reinforcement theory by asserting that if attention is given to clearly associated rewards with a desired behavior, beliefs will change as past experiences are overshadowed

by more recent experiences. Both past experiences and expectations influence behavior.

Sever and Westcott (1983) described current uses of both expectancy theory and reinforcement theory. Current theories recognize the complexity of behavior, and point out that any simplified approach is more likely to negatively motivate than to positively motivate. They reported that reinforcement theory is more closely related to learning theories, and presumes that as individuals interact with their work environment they attempt to satisfy their needs by controlling behavior patterns. The work environment and their own internal reward systems give them a choice of positive or negative rewards for the pattern of behavior chosen. This behavior does not act as a goad; it does not elicit the response as was the case in classical conditioning of reflex behavior in the sense of forcing it to occur. It is an essential aspect of the occasion upon which response is made and reinforced.

Theories of motivation and reinforcement have applications for the workplace. Many studies have been conducted to determine methods of motivation that might maintain and promote improved employee performance.

Work and Motivation

Deci and Vroom (1970) described three approaches that underlie concepts of motivation in the work place.

The first approach is described as paternalistic. This approach assumes that people will be motivated to perform their jobs effectively to the extent to which they are satisfied with their jobs. Therefore, the more one rewards workers, the harder they will work. The essence of this approach is to make the organization a source of important rewards--rewards for which the only qualification is membership in the organization. The rewards which are utilized in this approach might be termed unconditional rewards, as the amount of reward that any individual receives is not dependent in any clear way on how he or she behaves within the organization, but rather on the fact that he or she is a member of that organization.

Practices used in paternalistic organizations include rewards referenced as fringe benefits, such as pension plans, group insurance, subsidized education, recreation programs, comfortable working conditions, across-the-board raises, job security, and predictable promotion strategies. Many of these characteristics

would be consistent with the practices of most school systems.

The advantages of this system might include attracting and holding employees and contributing to job satisfaction. Disadvantages might include not having any direct effect on worker productivity or performance.

The second approach is described as the scientific management approach. This approach relies heavily on reinforcement theory (Skinner, 1971; Glaser, 1971). Rewards and penalties are tied directly to performance and to the probability that the rewards will cause the desired behavior repetition by rewarding or penalizing desired or non-desired behaviors. Rewards are conditional and might include individual wage incentives and promotions based upon merit and special accomplishment.

Advantages to the approach include immediate feedback and/or reward based upon known outcomes. Behaviors cannot be ignored. Disadvantages to this approach might include the need for close monitoring, a need for highly consistent reinforcement techniques, and a reliance on external controls. There must be clearly defined standards for rewards or penalties.

It is particulary difficult for the external control systems to encompass the higher order needs for esteem and self-actualization (Maslow, 1943), as higher order needs must be perpetuated internally.

Managing frequent and immediate teacher supervision and measuring or assessing teacher performance to produce desired effects is difficult for school systems.

The third approach is participative management. Individuals become part of the determination of the goals and outcomes of the organization. Individuals can become ego-involved with their jobs. The manager becomes a teacher, consultant, and colleague. Group decision-making becomes the norm.

This approach may more closely encompass Maslow's theory of a hierarchy of needs, Herzberg's theory of motivation-hygiene, and Vroom's theory of valence.

Advantages of the approach might include personal authority and self-actualization. Disadvantages might include demands of additional time and dependence on others to work with cooperative decision-making.

School systems consider aspects of this approach in site-based management systems and in quality management considerations.

Brayfield and Crockett (1955) discussed relationships of workers with groups both inside and outside of the work setting as a means of motivation within the work setting. The motivation orientation of individuals to meet their needs as a path of achievement outside of the work place and to meet the needs of the group inside of the work place. Group goals may not match management goals.

Georgopaoulos et al. (1957) suggested that certain workers in an organization have certain goals in common, the achievement of which would satisfy certain corresponding needs, and that behavior is in part a function of rational calculability, or decision-making in terms of goal-directedness. This is referred to as the path-goal approach.

The path-goal approach is based on the following assumptions: individual productivity is, among other things, a function of one's motivation to produce at a given level; in turn, such motivation depends upon both (1) the particular needs of the individual as reflected in the goals towards which he or she is moving and (2) his or her perception regarding the relative usefulness of productivity behavior as an instrumentality, or as a path to the attainment of these goals.

Workers who see high productivity as a path leading to the attainment of one or more personal goals will tend to be high producers; however, workers who see low productivity as a path to the achievement of their goals will tend to be a low producers. Productive behavior is seen as a function of path-goal perception, level of need, and level of freedom.

In a study by Georgopoulos et al. (1957), 62 factory workers could raise their wages by increasing effort or work pace. The results indicated that with a given goal item there was high production with positive path-goal perception, however, with goal items having negative or neutral path-goal perception significantly lower production was accomplished. Under the condition of freedom, difference in high producers and low or neutral producers is greater. High need of a given goal item increases the percentage of high producers who are free from constraining forces.

Katz (1964) discussed the types of motivational patterns for workers. These patterns include: (a) conformity to legal norms or rule compliance; (b) instrumental systems rewards such as benefits; (c) instrumental individual rewards; (d) internal satisfaction from role performance; (e) internalization

of organizational goals and values; and (f) involvement in primary-group relationships.

Motivational patterns may include both extrinsic and intrinsic motivators individually or in combination.

Lortie (1975) discussed work and motivation as they apply to teachers. He indicates that teaching is a relatively careerless occupation. As a result many traditional business incentives, such as promotion, cannot be paralelled with teacher incentives. Lortie indicates that due to the work situation of teachers, career and other work rewards for teachers are seen as (1) distribution of income over a working career and (2) balance between monetary rewards and other kinds of rewards in teaching.

Teachers may view promotions differently than those in business settings. Promotion or a better position may be preceived as an appointment to department chairman, relocation to another school with a different clientele, or a change to a different position (such as administrator). Lack of career staging in teaching results in dominance of present rather than future orientation and a sense of relative deprivation among those who persist in teaching and work at above-average

levels of effort (as all are paid the same). A teacher's major status gain may be in going into administration.

Lortie (1975) indicated that the primary benefits earned by persistence in teaching (annual increases in pay) are the outcome of seniority and course-taking; the incentive system, generally, is not organized to respond to variations of effort and talent among teachers. The traditional system of career rewards works most satisfactorily for those who give teaching less than full commitment. "Gainers" are teachers who plan on short-term or less than full-time engagement. The career system in teaching favors recruitment rather than retention and low rather than high involvement. This works to reduce the capacity of officials to exert influence over individual teachers.

Mitchell et al. (1987) reported a change of attitude toward teacher motivation after the publication and reaction to "A Nation At Risk." Improved teacher performance was addressed by the plan to link all teacher salary increases to improved teacher performance, i.e., pay teachers in direct proportion to their contribution of effective schooling for the nation's children. Merit pay and career ladders were a direct result of this reaction.

Salary for recruitment remained as a primary motivator focus. In addition, merit pay was introduced as a viable motivator for experienced staff. In a study of long-standing merit pay systems, Murnane and Cohen (1986) noted that teachers frequently viewed merit pay increases as public recognition of strong performance rather than a motivator for performance itself.

Career ladders and differentiated staffing reforms were designed to enrich work and enlarge teachers' responsibilities. Career ladders include steps toward a master teacher level. Each step embodies differing levels of prestige and responsibility. Common responsibilities for steps on the ladder include responsibility for developing curriculum, for conducting research, and for directing in-service programs.

Johnson (1986) noted that merit pay and career ladder programs have not been as successful as anticipated due to unexpected costs, teacher opposition, inadequate evaluations, and dissensions. Both plans address increases in pay, but rather than becoming a bonus for many, have become the annuity of a few. She notes that the search to identify new teaching roles was shunted aside because it was much easier to identify hierarchical roles. Teachers were frequently not

prepared for the dramatic changes in their work environment; becoming a team member in a hierarchy takes time, effort, and preparation.

Incentives described by studies are of two types--extrinsic incentives and intrinsic incentives. Extrinsic incentives are the only type of incentives that can be offered by an individual, group, or organization to impact the desired behavior of another. The preferred extrinsic incentive is one that propagates the liklihood of instilling intrinsic motivation by an individual or group.

Extrinsic vs. Intrinsic Rewards/Incentives

Extrinsic rewards are those that can be given by another. These rewards can include monetary incentives, awards, or recognition.

Intrinsic rewards are those one experiences internally. These may include a feeling of self-worth, a feeling of accomplishment, or a feeling of satisfaction with having met a goal successfully.

Intrinsic motivation, as described by Csikszentimihalyi (1982), is a type of flow experience that occurs when one's skills are equal to the challenge of the action. His earlier study (1980) determined that

people who perceived challenges and skills as balanced reported a high level of optimal or "flow" experience. The importance of "flow" experience lies in the fact that what is most important to each individual is how he or she feels, rather than what he or she does.

Broedling (1977) reported that intrinsic-extrinsic distinction also has been used to describe states of the individual--a person's motivation or satisfaction at a given time, subject to change depending on circumstances. The concept of intrinsic and extrinsic feedback is a way of explaining the variety of results in job enrichment studies. Intrinsic feedback is internally sent, and extrinsic feedback is externally sent. To the extent that the situation gives an employee the leeway to call upon skills and abilities that he or she values, and thus to rely primarily on intrinsic feedback, the employee will be intrinsically motivated. The implication is that employers may call upon skills and abilities they value by employing extrinsic feedback.

One major situational characteristic considered to be a determining factor in employees' intrinsic-extrinsic states is the type of rewards available. Porter and Lawler (1967) distinguished between extrinsic

rewards, which are controlled and awarded by the organization, and intrinsic rewards, which are awarded to the employee by himself or herself.

Pritchard and Peters (1974) hypothesized that intrinsic job satisfaction should be more closely related to the actual work content than extrinsic satisfaction. Their hypothesis was supported. They also found that intrinsic satisfaction was predicted better by the actual job duties than by the employees' interest in performing their job duties.

Two opposite theories of extrinsic/intrinsic motivations suggesting that rewards decrease motivation are Deci and Ryan's (1982) Cognitive Motivation and Evaluation Theory, and Lepper's (1981) Overjustification Hypothesis. Deci and Ryan reported that choice and positive feedback increase intrinsic motivation. Lepper postulated that extrinsic rewards, externally imposed controls, and negative feedback undermine intrinsic motivation and leave behavior dependent on external factors.

Deci (1972) found that when extrinsic rewards were contingent upon performance, there was a detrimental effect on intrinsic motivation, but no such detriment

appeared when rewards were not contingent upon performance.

Rummel and Feinber (1988) employed meta-analysis to determine the existence of the detrimental effects of extrinsic rewards on intrinsic motivation. Their results showed that, within strictly defined parameters, the phenomenon of detrimental effects of rewards described in Deci's cognitive evaluation theory did exist.

McNeill and Kimmel (1988) reported similar findings in a 1988 study. This study examined what would happen if individuals who are intrinsically motivated to perform a cognitive problem solving task were offered a contingent extrinsic monetary reward for doing so. Sixty male and sixty female undergraduates at the University of South Florida were the subjects. Results indicated that the offer of money for problem solving appeared to dramatically decrease intrinsic motivation and detrimentally affect performance. The findings also suggest incentives may have interfered in the cognitive storage and retrieval of information.

Merit pay, bonuses, and other monetary incentives have proved to be an overall ineffective extrinsic motivator for teachers in most school systems. Feelings

of ineffective application, nonrelated reinforcement, and lack of control over extraneous factors contribute to the perceived ineffectiveness (Land, 1986; Frase et al., 1987; Hegebush, 1988; Dunwell, 1991).

Ryan, Connell, and Deci (1985) were concerned about recent reports and discussions concerning the quality of education in America, and recommended improving education through stricter controls. They studied the concepts of active education (formation from within) and passive education (controlled by others) in the light of recommendations for stricter controls. Their determination was that active education was strongly linked to intrinsic motivation and passive education depended on extrinsic rewards.

Studies supporting the positive effects of extrinsic rewards are found throughout the literature as well.

Dickinson (1989) reviewed the overjustification hypotheses of Lepper and Deci and Ryan's motivational theories and presented an explanation for the decrease in the reinforcing value of extrinsic reward. She reported that the effect is transient and not likely to occur at all if extrinsic rewards are reinforcing, non-

competitive, based on reasonable performance standards, and delivered repetitively.

Morgan (1984) concluded in a similar literature review that rewards can have either undermining or enhancing effects, depending on the circumstances. The recipients perception of the functions of the reward is critically important.

Dilworth (1991) found that factors contributing to a sustained commitment to the teaching profession include nationality, socioeconomic background, gender, and point in time. Rewards and incentives play a key role in the level of satisfaction teachers gain from their work. Teachers garner more satisfaction from intrinsic rewards, such as successfully contributing to the development of a child, than from extrinsic rewards, such as compensation and position.

Five studies of different school district incentive programs concluded that increased professional opportunities and recognition lead to increased teacher motivation. Diverse approaches that offer both intrinsic and extrinsic motivators were found to be most effective (Dorman & Fulford, 1990).

Mongan (1984) and Lawrence (1985) concluded that a program of incentives must respond to varying faculty

aspirations that normally occur at different career stages. Careful monitoring and interpretation of changes in faculty ability, interest, and behavior can improve the person-environment fit.

Sever & Westcott (1983) concluded that knowledge of the needs, valences, or reinforcers for the employee reveals those job enrichment items relevant to each person as rewards. Knowledge of these items helps create an environment for the employee that rewards the desired behavior intrinsically.

Ames and Ames (1984) defined shared teacher and student value orientation in a qualitative study as applied to three systems of motivation--(1) ability-evaluative, (2) task mastery, and (3) moral responsibility. A teacher's or student's orientation to one or more of the systems characterized whether they were intrinsically or extrinsically motivated.

Interviews with Minnesota Teachers of the Year found that values and role behaviors of high-vitality teachers differed from models calling for extrinsic incentives such as merit pay (Sederberg et al., 1990). These interviews related the teachers success to intrinsic motivation rather than to offers of extrinsic merit pay incentive.

Sloan found five stages in faculty growth and development suggesting varying values for extrinsic and intrinsic motivation (1989). A study by Mitchell and Peters (1988) concluded that effective teacher incentive systems reflect the principle that intrinsic incentives such as planned opportunities for collegiality are rewarding to individual teachers.

Fox (1986) and Adams and Bailey (1989) found that building principals can effectively raise teacher self-esteem by offering recurring compliments, using imagery, providing social reinforcement, and trusting teacher endeavors. These forms of extrinsic motivation enhance the liklihood of teacher success. Andrews (1987), basing his study on Herzberg's motivation theories, found that highly individualized incentives offered to teachers, ranging from computers to conference money, are also seen as motivational.

Snyder & Spreitzer (1984), Ellis (1988), Tarrant (1991), explored relationships between characteristics of teaching as an occupation and the internal work motivation of teachers to determine whether teachers perceived the presence of core job dimensions of significance, autonomy, and feedback important to the motivation potential of their jobs. Findings showed

that classroom teachers saw their profession as intrinsically motivating, fulfilling, and satisfying, and one to which they could make a lifelong commitment. Restructuring of teaching jobs can intrinsically motivate teachers to achieve and be self actualized.

In a questionnaire administered to 1,278 Georgia teachers, Matthews and Holmes (1982) assessed the principal's role in extrinsically motivating teachers. Teacher attitudes were found to be affected by their perceptions toward their principal, their belief in the utility of improving performance, and their perceived ability to meet the principal's expectations regarding student achievement. Other studies describing the role of school administrators in impacting the motivation of teachers, especially by rewarding teacher performance, reported varying degrees of success (Silver, 1982; Theodossin, 1982; Ellis, 1984; Dufour, 1985).

Studies have described the types of incentives used in the work place, including school systems. Extrinsic incentives used by school systems take varying forms.

Incentives Used In School Systems

Hoy and Miskel (1982) defined incentives as the organizational counterpart to individual motivation;

that is, a worker receives incentives from the employing organization in return for being a productive member. They state that overreliance on, or inappropriate use of, extrinsic incentives can seriously damage the capacity of workers to derive internal satisfaction from their work and can even reduce their willingness to perform needed tasks. Therefore, appropriate motivation is the bedrock of effective work performance in any occupation.

School systems use several reward or incentive systems or practices. These motivational techniques include both formal and informal processes.

Traditional extrinsic incentives such as pay and benefits may be seen by teachers as gained by the teacher organization for all--not as something given by administration. The key for school systems is for teachers to see the school system as a source of extrinsic incentives.

Several sources discussed merit pay as a reward program. Most merit pay programs were introduced to school systems in the 1980's. School systems incorporated many ideas currently in place in businesses and attempted to reward teachers for doing tasks to meet

pre-established criteria (Land, 1986; Frase et al., 1987; Norton & Hegebush, 1988; Berry & Ginsberg, 1990).

The most obvious form of motivation or incentive is salary. Teacher salaries have been discussed and debated as incentives for both choosing the teaching profession at the entry level and continued motivation and retention. Salary must remain attractive to promote teaching as a viable entry field, as the number of quality, highly sought education graduates diminishes. Salary has an impact on the length of service given by veteran teachers as well. Their ability to maintain a desired life style is tied strongly to salary (Goodlad, 1984; Engelking, 1987; Norton & Hegebush, 1988; Berry & Ginsberg, 1990; Dilworth, 1991).

Various researchers indicated that monetary rewards, such as grants or pre-established amounts, are effective as an extrinsic reward to some teachers. Teachers must follow predetermined processes to earn the monetary reward (Novatis, 1986; Washburn, 1986; Dunwell, 1991; Ybarra & Harmison, 1991).

Other researchers found individual or group incentives geared to the individual needs of the individual or group to be some of the most effective. Teachers see incentives that they have selected--such as

computers, clerical help, business cards, and money for conferences--as especially rewarding. (Johnson, 1986; Andrews, 1987; Engelking, 1987; Habit, 1987; Pross, 1989).

Other incentives offered by school systems include flexible benefit plans (Johnson, 1987), building principal recognition and praise (Fox, 1986; Adams & Bailey, 1989), career ladders, and status based on recognized achievement, abilities, or promotion (Harkins, 1987; Dorman & Fulford, 1990).

Summary

Throughout the literature are examples of theories on rewards or incentives and their effect on motivation and performance. Extensive research also exists on the effects of extrinsic rewards on motivation, and research can be found to either support or reject the idea that the use of rewards encourages performance and motivation. Although the research appears equally distributed between support and rejection of the use of extrinsic rewards, there is extensive use of reward and incentive programs in present school systems.

School systems must give primary attention to strengthening their organizations by determining purpose

of incentives. Incentives having the greatest likelihood of successfully motivating teachers in their job performance are those that meet either the teacher's overall motivation orientation or specific motivation orientations that are contingent on the performance level desired in identifiable situations. These may include practices and policies that (1) are culturally shaped and reshaped, (2) give primary attention to strengthening the organization, (3) facilitate the development of appropriate group level, (4) enhance intrinsic incentives focusing on student achievement and obtaining warmth and caring from students, (5) continue incentives that produce a feeling of job security, (6) employ principals who know when and how to play varying supportive roles for the teacher, and (7) authenticate the actions and goals of teachers.

Chapter III

METHODOLOGY

Introduction

The researcher's purpose in conducting the study was to determine the motivation orientation of secondary public school teachers and whether there was a predictive relationship between their orientation and their attitudes about extrinsic incentives offered by school systems. Additionally, the variables of gender, building level configuration, metropolitan/surburban area, level and degree of educational experience, years of teaching experience, and required/elective subject area and how these variables effect teachers' attitudes about extrinsic incentives offered by school systems were also considered.

Population and Sample

The population for this study included approximately 2500 public secondary school teachers in a metropolitan Nebraska public school system and secondary school teachers in surrounding suburban public school systems during the 1992-93 school term. Research practices reviewed indicated a sample size of at least

100 for the main subject--attitudes about incentives--and 20 to 50 subjects for each subgroup (Borg & Gall, 1983). There were six subgroups in this study. A useable return rate of 75% was desired. To accomplish this return rate, a sample of 400 teachers was compiled, consisting of 200 teachers from the metropolitan area and 200 teachers from the surburban area. The Nebraska State Department of Education (1992-93) publication listing teachers in all school systems by school was used to identify a listing of teachers. Based on the information in this publication, the sample was stratified in two ways--by ranges of years of experience and by metropolitan or suburban school systems.

A table of random numbers from Borg and Gall (1983) was used to select teachers from the metropolitan area and the surburban area.

Design and Procedures

Survey research was used in this study. In survey research, large and small populations are studied by means of sampling to discover the relative incidence, distribution, and interrelations of sociological and pyschological variables (Kerlinger, 1978).

The advantages of this data collection procedure were its low cost, ease of accessibility of data collection, and the ability of the researcher to gather information from a large geographic area.

The independent variables of the study included teachers' motivation orientation, gender, building level configuration, metropolitan/surburban area, level and degree of educational experience, years of teaching experience, and required/elective subject area. The dependent variable was their attitudes about extrinsic incentives offered by school systems.

Instrumentation and Pilot

Two surveys were combined to carry out this study--one to determine the teacher's motivation orientation, and the other to determine the teacher's attitudes toward extrinsic incentives offered by school systems. The surveys selected and constructed were based on a review of the literature on work motivation and incentives.

The independent variable of motivation orientation was measured by an instrument developed by Saleh (1971, 1988) entitled The Job Attitude Scale (JAS), which was used to assess each teacher's intrinsic or extrinsic job

orientation. The instrument included 60 items in which an intrinsic factor was paired with an extrinsic factor in a forced choice format. A systematic method was used to scatter the items of each statement throughout the scale. Extrinsic and intrinsic scores were obtained by giving one point whenever the intrinsic factor was checked in the 60 items where an intrinsic factor was paired with an extrinsic one. The possible score range was then 0-60. Respondents who checked more than 30 extrinsic responses were catagorized as extrinsically motivated. Respondents who checked more than 30 intrinsic responses were catagorized as intrinsically motivated. The results of the survey provided a score where a respondent fell within the range of 0-60 from giving a degree of preference to "intrinsic" or "extrinsic" motivation orientation. The researcher obtained authorization from the author to change some of the questionnaire terms i.e. "supervisor" to "principal" in order to better address the survey sample (see Appendix A).

The reliability of the Job Attitude Scale (JAS) was established by Saleh (1971, 1988) who reported an initial split-half reliability of .94 for the general intrinsic scale in his initial study. The second study

determined test-retest reliability of the scale. The JAS was administered twice to a group of employees within a two-week period of time. The correlation between the scores of the two administrations, i.e., the reliability was .88.

The second part of the survey instrument was designed by the researcher. This survey component was used to determine the attitude of teachers about incentives offered by school systems. The incentives used in the survey were identified in a review of the literature focusing on teacher rewards and incentives. Teachers were asked to respond to the statements by circling the number that best reflected their attitude about the importance of the incentives described to motivate them to do their job better. A Likert-type scale was used, listing numbers 1-5 on a range from "Not Important" to "Extremely Important". Scores on the attitude scale were summed to provide the attitude scores.

The researcher submitted an Exemption Information Form for the research project titled "Teacher Motivation Orientation and Their Attitudes About Extrinsic Incentives" to the Institutional Review Board for

authorization to begin research. Authorization was obtained (see Appendix B).

The total survey instrument was given to a pilot group of 11 teachers from the metropolitan and surrounding suburban school districts. Pilot survey participants completed the entire survey. Upon completion of the survey, they indicated, by answering "yes" or "no," whether they believed the statements described an incentive that might motivate teachers and wrote suggested wording or comments next to the questions if they believed the statements were vague or unclear. All pilot teachers validated the statement questions as motivators; none made any recommendations for change. A cover letter and a copy of the pilot survey form is included (see Appendix C). Based on the returns and responses on the pilot survey, a determination was made to advance the survey in the existing format without further changes.

The completed survey form included Part I, the Job Attitude Scale, and Part II, the researcher-designed survey asking for ratings on 27 statements concerning incentives used by school systems to motivate teachers.

In addition, six demographic questions were asked to determine gender, building level configuration,

metropolitan/surburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area. A cover letter explained the purpose of the study and assured anonymity of the subject. The survey was five pages in length (including the demographic information) and printed on 8 1/2" x 11" paper. A copy of the questionnaire is included in Appendix D.

Data Collection

A cover letter was constructed for a district administrator in each targeted school district. The letter contained (1) a description of the purpose of the study, (2) a description of the sample subjects desired, (3) information about the desired method of teacher selection, (4) information about the desired dates of survey distribution, (5) assurance of anonymity of subjects and school systems, and (6) a description of the reporting format. The district administrative representative was asked to sign an enclosed authorization form and return it to the researcher (see Appendix E).

The initial mailing of the survey instrument was made during the first week of May of the 1992-93 school year. An effort was made to avoid the very end of the

school year. A cover letter to the teacher explaining the purpose of the research, selection process, assurances of anonymity, and procedures accompanied each survey. Respondents were asked to return the completed survey in the self-addressed stamped envelope provided (see Appendix F).

Approximately a week and a half after the initial mailing, a second mailing was initiated to those teachers who had not responded. As of the date of the second mailing, 210 useable surveys had been received. A reminder card and request for return of the questionnaire were included in the second mailing (see Appendix G). The second mailing prompted several teachers to return the original questionnaire. Valid returns continued into mid-June. Because of the loss of access to teachers and a high percentage of return, an additional mailing was not initiated.

Data Analysis

Data gathered by the survey instrument were analyzed, with the assistance of the NEAR Center at the University of Nebraska-Lincoln, using the SPSSX software program.

For the data analysis, all 250 useable returns were included. Some of the respondents left items on the survey form blank. A blank response was assigned a value of 9 or 99 which was the "not sure" response. For the analysis of the variables of gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area, some categories were collapsed due to insufficient number or unclear response. The category of middle school/junior high school was collapsed into the same category. The number of hours beyond degree were collapsed into the category of hours beyond degree.

The data were analyzed using multiple regression. Multiple regression allowed the researcher to determine whether there was a predictive relationship between the independent variables of motivation orientation, gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area and the dependent variable of attitudes about extrinsic incentives.

The relationship between a dependent variable (Y^1) and a set of independent variables ($X_1X_2X_3 \ . \ . \ . \ . \ X_k$)

is modeled by the multiple regression procedures as described by Lewis and Beck (1980), in the following manner:

$$Y^1 = a + b_1X_1 + b_2X_2 + \ldots + b_kX_k + S_{yx}$$

where: Y^1 = value of the dependent variable

X = value of the respective independent variable

a = intercept or regression constant

b = regression coefficients associated with the respective predictor variables

S_{yx} = error or residual

The dependent variable is seen as a linear function of more than one independent variable. In this dissertation, Y^1 is determined by X_1 to X_7.

Multiple regression analysis is a method for studying the associations and the magnitudes of the associations of more than one independent variable on a single dependent variable using principles of correlation and regression (Kerlinger, 1986).

What multiple regression analysis and correlation does, essentially, is to find the best posssible combination of X_1 and X_2 given Y^1 and the relations among the three variables, so that the correlation between the two-variable combination and Y is a maximum.

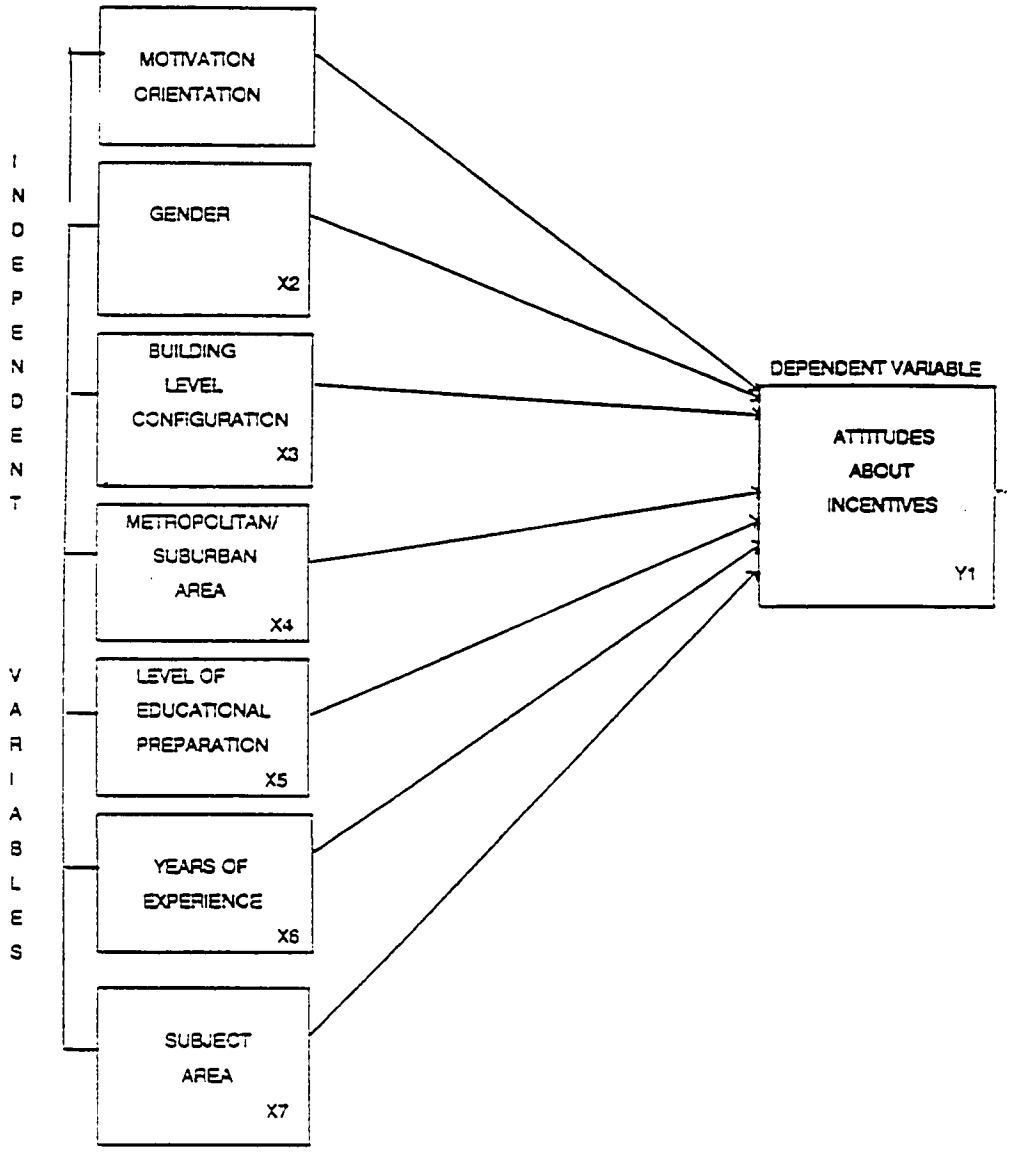
INDEPENDENT VARIABLES
MOTIVATION ORIENTATION
GENDER
X2
BUILDING LEVEL CONFIGURATION
X3
METROPOLITAN/ SUBURBAN AREA
X4
LEVEL OF EDUCATIONAL PREPARATION
X5
YEARS OF EXPERIENCE
X6
SUBJECT AREA
X7
DEPENDENT VARIABLE
ATTITUDES ABOUT INCENTIVES
Y1

FIGURE I

In the problem presented by Figure 1, multiple regression finds those values of b_1 and b_2 that will make the correlation between X_1 and X_2, taken together, and Y_1 as high as possible. The b weights, called regression weights or coefficients, are then used with the two variables in predicting the criterion variable, Y^1. This method, in effect, creates a new variable which is a combination X_1 and X_2, i.e., Y^1. Then, the multiple correlation is between Y_1, the dependent variable, and Y^1, the dependent variable predicted from knowledge of X_1 and X_2.

The technique of mulitiple regression makes it possible to combine predictor variables and thus to make a better prediction than any "one" predictor variable can do alone (Minium, 1978). Hence, in finding this coefficient of multiple correlation, weights are determined to apply to each predictor variable so that the weighted total of these variables has the highest possible correlation with the variable to be predicted. The coefficient of multiple correlation, R, yields the correlation between the variable to be predicted and the best weighted composite of the predictor variables. R, then, is the highest possible correlation between a least-squares linear composite of the independent

variables and the dependent variable. R^2 indicates that portion of the variance of the dependent variable, Y, due to the independent variables in concert. R, unlike r, varies only from 0 to 1.00; it does not have negative values.

A regression equation states what value of Y is expected (Y^1) when X has a particular value. The predicted value, i.e., Y^1, is only an estimate. If the correlation is low, considerable variation of actual values about the predicted value may be expected. If the correlation is high, the actual values will cluster more closely about the predicted value. Only when the correlation is unity (1.00) will the actual values regularly and precisely equal the predicted values. The standard error of estimate, S_{yx}, [or e] is a way to measure this predictive error. The standard error of estimate is a kind of standard deviation: it is the standard deviation of the distribution of obtained Y scores about the predicted Y score. When the correlation is perfect, every value of $(Y-Y^1)$ is zero, and therefore S_{yx} is zero. Hence, there is no error of prediction (Pedhazur, 1982).

Several assumptions are necessary in applying the multiple regression and correlation procedures noted

above. First, in using a regression equation to obtain the predicted value for Y, a straight line must be the line of best fit; otherwise, the predicted value may be too high or low. Second, S_{yx} is taken as the standard deviation of the distribution of obtained Y scores about Y^1, regardless of the value of X from which the prediction has been made. Thus, it is necessary to assume that variability of error is the same at all levels of X. Third, the distribution of Y scores (for a particular value of X) is normal.

Chapter IV

RESULTS

Introduction

The purpose of the researcher's study was to determine the motivation orientation of secondary public school teachers and whether there was a predictive relationship between their orientation and their attitudes about extrinsic incentives offered by school systems. Additionally, the study was intended to determine if a predictive relationship existed between the independent variables of gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area taught and the dependent variable of attitudes about extrinsic incentives offered by school systems.

The presentation and data analysis is organized according to the predictive relationship of each of the independent variables, listed above, on the dependent variable of attitudes about extrinsic incentives.

The attitudes of the subjects included as independent variables is reported in relation to the extrinsic incentives described for school systems.

A discussion of the findings appears in this chapter. The data are presented in a series of tables to assist the reader. Reference has been made to the research queries identified for the study in conjuntion with each corresponding table.

Procedures

To obtain the necessary data, a survey instrument was constructed. Two surveys were combined to carry out this study--one to determine teachers' motivation orientation and the other to determine the teacher's attitudes about extrinsic incentives offered by school systems. The surveys selected and constructed were based on a review of the literature on work motivation.

The independent variable of motivation orientation was measured by an instrument developed by Saleh (1971, 1988) entitled The Job Attitude Scale (JAS), which provided assessment of a teacher's intrinsic or extrinsic orientations.

A researcher-designed instrument was used to measure the dependent variable of attitudes about extrinsic incentives offered by school systems. Teachers were asked to respond to the statements by circling the number that best reflected their attitude about the

importance of the incentives described to motivate them to do their job better. A Likert-type scale was used listing number 1-5 on a range from "Not Important" to "Extremely Important". A reliability rating of >.80 was desired for these responses. Chronbach's alpha was used to determine the internal consistency. The reliability was indicated by a score of .93. The mean scores for each of the 27 items were averaged to determine teachers' attitude scores toward each incentive described.

Although the researcher had initially identified a sample size of 400, the actual sample size was 380 teachers. One school would not allow the distribution of the survey. This accounted for the loss of access to 20 teachers. Notification of non-distribution of the surveys did not occur until mid-May. The researcher concluded that the lateness of the notification would not allow adequate time for processing of replacement surveys due to the close of the school year. The sample size was reduced to 380 subjects. A final number of 250 useable surveys were received. This number represents 65.7 percent of those surveyed.

Demographic Data

Summaries of descriptive statistics pertinent to demographic and variable responses are provided in Tables 1 through 7.

The percentage and frequency of useable responses by those indicating either an extrinsic or intrinsic motivation orientation is shown in Table 1. Determining a teacher's motivation orientation was a major purpose of this study. Four out of five of the 250 teachers who responded to the survey instrument were determined to have an extrinsic motivation orientation.

Table 1

Extrinsic/intrinsic motivation orientation

Measure	Extrinsic	Intrinsic
Percent	79.2	20.8
Frequency	198	52

The remaining tables represent the demographic information about the other independent variables noted in this study.

The percentage and frequency of useable responses by males and females is shown in Table 2.

Table 2

Gender

Measure	Male	Female	Missing
Percent	47.0	51.8	1.2
Frequency	117	130	3

The percentage and frequency of useable returns for the teachers building level configuration is shown in Table 3. The categories of middle school and junior high school were combined.

Table 3

Building level configuration

Measure	Jr.High/Middle	High School
Percent	47.4	52.6
Frequency	118	132

The percentage and frequency of useable returns for the metropolitan and suburban school systems is shown in Table 4. This area was stratified for the sampling. The return results were self reported and did not always match the coding of the researcher.

Table 4

Metropolitan/suburban area

Measure	Metropolitan	Suburban	Missing
Percent	53.8	41	5.2
Frequency	134	103	13

The percentage and the frequency of returns by earned degree of educational preparation of the teacher respondents is shown in Table 5. Also reported are the number of hours beyond degree showing mean, mode, and median on a range of 43 hours are also reported. A percentage of the respondents (40.6) did not respond to hours beyond degree.

Table 5

Educational preparation

Measure	Bachelor's Degree	Master's Degree	Missing
Percent	47.4	48.6	11
Frequency	118	121	

Measure	Total hours beyond degree
Mean	26
Mode	36
Median	30
Range	43

The mean, mode, median, range and frequency of returns by the respondents' years of experience are shown in Table 6. The sample population had been stratified by ranges of years of experience (0-4 years, 5-10 years, 11-15 years, 16-20 years, and 20 and beyond).

Table 6

Years of teaching experience

Measure	Total years of experience	Missing
Mean	14.99	
Mode	15 & 20	
Median	18	
Range	36	
Percent		1.6
Frequency		5

The percentage and frequency of returns by the whether the respondent teaches required or elective subjects is shown in Table 7.

Table 7

Type of subject taught

Measure	Required	Elective	Both
Percent	14.0	12.0	75.0
Frequency	34	29	187

Findings

Multiple regression was used to determine how the independent variables of motivation orientation, gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area taught might be related to the dependent variable of attitudes about extrinsic incentives.

Motivation orientation was measured by charting responses to the Job Attitude Scale. Extrinsic and intrinsic scores are obtained by giving one point whenever the intrinsic factor is checked in the 60 items where an intrinsic factor is paired with an extrinsic one. The possible score range is then 0-60. Respondents who checked more than 30 extrinsic responses were determined to be extrinsically motivated. Respondents who checked more than 30 intrinsic responses were determined to be more intrinsically motivated. The results of the survey provide a score whereby a respondent will fall within the range of 0-60 by indicating a degree of preference to "intrinsic" or "extrinsic" motivation orientation.

Attitudes about extrinsic incentives offered by school systems were measured by being summed on a range

from least to the greatest. The multiple regression analysis determined that there was a significant predictive relationship between the degree of extrinsic motivation orientation and the summed preference toward extrinsic incentives expressed in the "Attitudes About Extrinsic Incentives" instrument.

Items on the survey were collapsed into scales for the independent variables and the dependent variable, and a descriptive analysis of the variables, using SPSSX software, is reported for the means and standard deviations.

An important aspect of data presentation for a regression procedure is the correlation matrix. The correlation matrix for this study is found in Table 8. The correlation matrix demonstrates the degree of correlation between pairs such as attitude and orientation (.547). The following variables in the correlation matrix are independent variables:

Attitude

Motiv. Orient. (Motivation Orientation)

Gender

Bldg. Lev. (Building Level Configuration)

Degree (Level and Degree of Educational Preparation)

Table 8

Correlation matrix

	Attitude	Motiv. Orient.	Gender	Bldg. Level	Degree	Met/Sub Area	Exper.	Require	Elective
Attitude	1.00	.55**	-.00	-.05	-.12	.05	.09	.03	-.02
Mot. Orient.	.55**	1.00	.12	-.12	-.10	.03	.09	.06	-.05
Gender	-.00	.12	1.00	-.12	.17	-.01	.18	-.05	.07
Bldg. Level	-.05	-.12	-.12	1.00	-.18	.01	-.07	.07	-.10
Degree	-.12	-.10	.17	-.18	1.00	-.06	.31**	-.11	.03
Met/Sub Area	.05	.03	-.01	.01	-.06	1.00	-.05	.15	.03
Exper.	.09	.09	.18	-.07	.31**	-.05	1.00	.00	-.11
Required	.03	.06	-.05	.07	-.11	.15	.00	1.00	.13
Elective	-.02	-.05	.07	-.10	.03	.03	-.11	.13	1.00

** p<.01

Met/Sub Area (Metropolitan/Suburban Area)

Exper. (Years of Teaching Experience)

Required

Elective

A hierarchical multiple regression analysis was used in this study. Hierarchical analyses allowed the researcher to enter the primary variables of motivation orientation and the variable of years of experience. The latter area was one that the research suggested was most likely to have a relationship with attitudes about extrinsic incentives. The extent to which each independent variable impacts the dependent variable can be influenced by the order in which they are entered into the regression analysis. As independent variables are entered into the equation they impact the dependent variable to the extent indicated in the table. Two hierarchical analyses were computed using the two areas that research implied might show the greatest impact--motivation orientation and years of teaching experience.

The results of the first hierarchical regression are shown in Table 9. Attitudes about extrinsic incentives is represented by (Y^1), extrinsic motivation orientation (X_1), years of teaching experience (X_2), level and degree of educational preparation (X_3), gender

Table 9

Hierarchical lineear regression of predicting attitudes

Variable ordering 1
(n=250)

Independent variables	Beta Coeff.	R^2	Std. Error	F	P (<.05)
Constant	95.1508		3.82		.00
Orientation (X_1)	.5437	.30	.02	99.21	.00*
Experience (X_2)	.0387	.00	.12	96.87	.48
Degree (X_3)	-.0824	.01	2.24	1.99	.16
Gender (X_4)	-.0718	.01	2.18	1.61	.21
Bldg. Level (X_5)	-.0021	.00	2.18	.001	.97
Required (X_6)	.04	.00	.39	.56	.46
Elective (X_7)	.01	.00	.31	.06	.81
Area (X_8)	.03	.00	2.17	.28	.59

* Significant P value: .00

Degrees of freedom 225

Overall F statistic 12.91

Mulitiple R .56

R^2 .00

(X_4), building level configuration (X_5), subjects area - required (X_6), subject area - elective (X_7), and metropolitan/suburban area (X_8).

The first hierarchical multiple regression results (Table 9) indicated that there was a significant association (<.05) between motivation orientation (X_1) and attitudes about extrinsic incentives (Y^1), but that years of teaching experience (X_2), level and degree of educational preparation (X_3), gender (X_4), building level configuration (X_5), teaching a required subject (X_6), teaching an elective subject (X_7), and metropolitan/surburban area (X_8) did not have a significant association.

The second hierarchical multiple regression results (Table 10) indicated that there continued to be a significant association (<.05) between motivation orientation (X_2) and attitudes about extrinsic incentives (Y^1), but that years of teaching experience (X_1), gender (X_3), level and degree of educational preparation (X_4), teaching an elective subject (X_5), teaching a required subject (X_6), building level configuration (X_7) and metropolitan/suburban area (X_8) did not have a significant association.

Table 10

Hierarchical linear regresson of predicting attitudes

Variable ordering 2
(n=250)

Independent variables	Beta Coeff.	R2	Std. Error	F	P (<.05)
Constant	95.15		3.82		.00
Experience (X_1)	.0889	.01	.14	1.85	.17
Orientation (X_2)	.5437	.29	.01	96.86	.00*
Gender (X_3)	-.0815	.01	2.15	2.10	.14
Degree (X_4)	-.0720	.01	2.25	1.50	.22
Elective (X_5)	.0198	.00	.30	.12	.72
Required (X_6)	.0392	.00	.39	.48	.48
Bldg. Level (X_7)	-.0031	.00	2.20	.003	.95
Area (X_8)	.0297	.00	2.16	.28	.59

* Significant P value: .00

Degrees of freedom 225

Overall F statistic 12.91

Multiple R .56

R^2 .00

Further hierarchical regressions were not run due to the degree of significance of the independent variable, motivation orientation, and the lack of significance of other variables in the most logical sequence of relationship to the dependent variable, attitudes about extrinsic incentives.

While multiple regression and correlation cannot actually establish cause-effect relationships, it can examine the predictive nature and extent of association between the dependent variable and potential independent variables. There was a predictive relationship between the extrinsic motivation orientation of teachers and their attitude toward extrinsic incentives offered by school systems.

Part II of the survey addressed extrinsic incentives frequently employed by school districts. There were twenty-seven extrinsic incentives addressed in the survey. Respondents were asked to indicate their attitudes toward the incentives on a 5-point Likert-type scale, ranging from "Not Important" to "Extremely Important".

Table 11 shows the the mean scores and ranking of responses by teachers completing the survey to each of

Table 11

Attitudes about extrinsic incentives

offered by school systems

Incentive	Mean	Ranking
Health Insurance	4.88	1
Job Security	4.78	2
Competitive Salary	4.73	3
Tuition Reimbursement for Professional Growth	4.42	4
Financial Support to Attend Workshops	4.42	4
Salary Increase/ More Higher Education	4.40	5
Life Insurance	4.39	6
Working with People Liked	4.32	7
Disability Insurance	4.32	7
Pay for Unused Leave	4.31	8
Positive Feedback from Principal in Teacher Evaluation Process	4.24	9
Leave with Pay	4.21	10
Material Support for Demonstrated Skills	4.16	11
Informal Positive Feedback fr Principal	4.15	12
Select from Array of Benefits	4.14	13
Good Physical Surroundings	4.13	14
Financial Support to Accomplish Projects	4.10	15
Annuity	3.90	16
Clerical/Aide Assistance	3.88	17
Career Ladder	3.70	18
Bonus Pay	3.60	19
Merit Pay	3.36	20
Public Recognition from Supervisor	3.27	21
Sabbatical	3.17	22
Assignment with Special Prestige	2.80	23
Name Listed in Publication	2.37	24
Material Symbol	1.93	25

the 27 extrinsic incentives (motivators) offered by school systems.

In a factor analysis (Table 12) of Attitudes About Extrinsic Incentives, it was determined that there were five extrinsic motivators that have an overall Eigenvalue of over 1.0, indicating a strong correlation of each item to Factor I. Factor I indicated a strong teacher attitude of importance toward a sense of security.

In analyzing the factor analysis, the researcher noted the correlation of each item toward the factor. One factor was established by the correlation showing that all items contributed to the factor ($p>.30$).

Attitudes about extrinsic incentives offered by school systems are shown in Tables 13 through 18. These tables provide the mean score of responses to each school system incentive described and the rank of importance given to each incentive. The data are shown for each of the independent variables.

The ranking of attitudes about extrinsic incentives by extrinsically and intrinsically motivated teachers are indicated in Table 13. Extrinsically motivated teachers ranked health insurance (4.96), job security (4.89), and competitive salary (4.78) as their top

Table 12

Factor analysis

Variable	Factor Loading p> .30
Merit Pay	.41
Bonus Pay	.38
Competitive Salary	.48
Financial Support to Attend Workshops	.49
Financial Support to Accomplish Projects	.52
Good Physical Surroundings	.47
Material Symbol	.41
Material Support for Demonstrated Skills	.44
Public Recognition from Supervisor	.39
Name Listed in Publication	.44
Select from Array of Benefits	.44
Annuity	.56
Leave with Pay	.58
Sabbatical	.67
Salary Increase for More Higher Education	.73
Disability Insurance	.71
Pay for Unused Leave	.68
Life Insurance	.69
Health Insurance	.71
Tuition Reimbursement for Professional Growth	.63
Positive Feedback from Principal in Teacher Evaluation Process	.67
Working with People Liked	.62
Assignment with Special Prestige	.66
Career Ladder	.69
Clerical/Aide Assistance	.68
Informal Positive Feedback from Principal	.66
Job Security	.71

Table 13

Rankings of attitudes about extrinsic incentives by motivation orientation (n=250)

Incentive	Extrinsic (n=198) Mean (Rank)	Intrinsic (n=52) Mean(Rank)
Merit Pay	3.35 (19)	3.37 (22)
Bonus Pay	3.60 (18)	3.62 (20)
Competitive Salary	4.78 (3)	4.54 (2)
Finan. Support/Workshops	4.41 (7)*	4.46 (4)
Finan. Support/Accom. Projects	4.07 (15)	4.25 (8)
Good Physical Surroundings	4.15 (13)	4.06 (12)
Material Symbol	1.94 (24)	1.88 (26)
Mater. Support/Demonstrated Skills	4.14 (14)	4.27 (7)
Public Recognition from Supervisor	3.22 (20)	3.46 (21)
Name Listed in Publication	2.37 (23)	2.37 (25)
Select from Array of Benefits	4.23 (11)	3.81 (17)
Annuity	3.94 (16)*	3.75 (18)
Leave with Pay	4.28 (9)	4.00 (13)
Sabbatical	3.18 (21)	3.13 (23)
Salary Inc./More Higher Education	4.42 (6)*	4.31 (6)
Disability Insurance	4.38 (8)	4.08 (11)*
Pay for Unused Leave	4.42 (6)*	3.90 (15)
Life Insurance	4.45 (4)	4.13 (10)
Health Insurance	4.96 (1)	4.58 (1)
Tuition Reim./Professional Growth	4.43 (5)	4.38 (3)
Pos. Feedback from Principal in Teacher Evaluation Process	4.25 (10)	4.21 (9)
Working with People Liked	4.41 (7)*	3.96 (14)
Assignment with Special Prestige	2.78 (22)	2.87 (24)
Career Ladder	3.66 (17)	3.87 (16)
Clerical/Aide Assistance	3.94 (16)*	3.65 (19)
Informal Pos. Feedback from Prin.	4.17 (12)	4.08 (11)*
Job Security	4.89 (2)	4.33 (5)

*Notes tie ranking

incentives (>4.5) by importance. Intrinsically motivated teachers ranked health insurance (4.58) and competitive salary (4.54) as their highest ranking (>4.5). These groups share health insurance and competitive salary as high motivators.

The incentives of least importance (<3.0) to extrinsically motivated teachers were material symbols (1.94), having their name listed in a publication (2.37), and assignment with special prestige (2.78) as the least important. Intrinsically motivated teachers indicated material symbols (1.88), name listed in publication (2.37), and assignment with special prestige (2.87) as the least important. The incentives of least importance for both groups are material symbols, having their name listed in a publication, and assignment with special prestige.

The ranking of attitudes about extrinsic incentives by males and females is shown in Table 14. Males ranked health insurance (4.97), job security (4.86), and competitive salary (4.78) as their top incentives (>4.5) by importance. Females ranked health insurance (4.76), job security (4.67), competitive salary (4.66), and higher salary for more education (4.55) as their highest

Table 14

Rankings of attitudes about extrinsic incentives by gender (n=247)

Incentive	Male (n=117) Mean (Rank)	Female (n=132) Mean(Rank)
Merit Pay	3.32 (20)	3.38 (20)
Bonus Pay	3.58 (19)	3.60 (19)
Competitive Salary	4.78 (3)	4.66 (3)
Finan. Support/Workshops	4.30 (8)	4.43 (6)
Finan. Support/Accom. Projects	3.98 (15)	4.18 (12)
Good Physical Surroundings	4.15 (12)	4.08 (15)
Material Symbol	1.95 (25)	1.87 (25)
Mater. Support/Demonstrated Skills	4.06 (14)	4.21 (11)
Public Recognition from Supervisor	3.23 (21)	3.26 (21)
Name Listed in Publication	2.33 (24)	2.36 (24)
Select from Array of Benefits	4.16 (11)	4.13 (13)
Annuity	3.78 (17)	3.98 (17)
Leave with Pay	4.11 (12)	4.26 (9)
Sabbatical	3.08 (22)	3.23 (22)
Salary Inc./More Higher Education	4.38 (5)	4.23 (10)*
Pay for Unused Leave	4.33 (7)*	4.27 (8)
Life Insurance	4.44 (4)	4.31 (7)
Health Insurance	4.97 (1)	4.76 (1)
Tuition Reim./Professional Growth	4.33 (7)*	4.49 (5)
Pos. Feedback from Principal in Teacher Evaluation Process	4.24 (9)*	4.20 (12)
Working with People Liked	4.36 (6)	4.23 (10)*
Assignment with Special Prestige	2.62 (23)	2.73 (23)
Career Ladder	3.77 (18)	3.60 (19)
Clerical/Aide Assistance	3.83 (16)	3.90 (18)
Informal Pos. Feedback from Prin.	4.17 (10)	4.09 (14)
Job Security	4.86 (2)	4.67 (2)

*Notes tie ranking

ranking. The top three for males and females are in the same rank order.

The incentives of least importance (<3.0) to males were material symbols (1.95), having their name listed in a publication (2.33), and assignment with special prestige (2.62) as the least important. Females indicated material symbols (1.87), name listed in publication (2.36), and assignment with special prestige (2.73) as the least important. The incentives of least importance to both male and female teachers share material symbols and having their name listed in a publication.

The ranking of attitudes about extrinsic incentives by junior high/middle school teachers and high school teachers is indicated in Table 15. Junior high/middle school teachers ranked health insurance (4.84), job security (4.79), and competitive salary (4.71) as their top incentives (>4.5) by importance. High school teachers ranked health insurance (4.89), competitive salary (4.73), and job security (4.73) as their highest ranking. Both groups include health insurance, competitive salary, and job security.

The incentives of least importance (<3.0) to junior high/middle school teachers were material symbols

Table 15

Rankings of
Attitudes about extrinsic incentives by building level (n=250)

Incentive	Jr.High/Middle (n=118) Mean (Rank)	High School (n=132) Mean (Rank)
Merit Pay	3.34 (22)	3.32 (17)
Bonus Pay	3.62 (21)	3.53 (16)
Competitive Salary	4.71 (3)	4.73 (2)*
Finan. Support/Workshops	4.34 (7)	4.45 (3)
Finan. Support/Accom. Projects	4.01 (16)	4.13 (11)*
Good Physical Surroundings	4.05 (15)	4.17 (10)*
Material Symbol	1.33 (27)	1.92 (21)
Mater. Support/Demonstrated Skills	4.06 (14)	4.23 (9)
Public Recognition from Supervisor	3.21 (23)	3.27 (18)*
Name Listed in Publication	2.25 (26)	2.41 (20)
Select from Array of Benefits	3.94 (17)	4.29 (7)
Annuity	3.91 (18)	3.87 (14)
Leave with Pay	3.17 (24)	3.14 (18)*
Salary Inc./More Higher Education	4.41 (5)	4.39 (4)*
Disability Insurance	4.31 (9)	4.28 (8)*
Pay for Unused Leave	4.32 (8)	4.28 (8)*
Life Insurance	4.39 (6)	4.34 (5)
Health Insurance	4.84 (1)	4.89 (1)
Tuition Reim./Professional Growth	4.45 (4)	4.39 (4)*
Pos. Feedback from Principal in Teacher Evaluation Process	4.28 (11)	4.17 (10)*
Working with People Liked	4.30 (10)	4.30 (6)
Assignment with Special Prestige	2.74 (25)	2.79 (19)
Career Ladder	3.72 (20)	3.64 (15)
Clerical/Aide Assistance	3.82 (19)	3.89 (13)
Informal Pos. Feedback from Prin.	4.25 (13)	4.04 (12)
Job Security	4.79 (2)	4.73 (2)*

*Notes tie ranking

(1.33), having their name listed in a publication (2.25), and assignment with special prestige (2.74) as the least important. High school teachers indicated material symbols (1.92), name listed in publication (2.41), and assignment with special prestige (2.79) as the least important. The incentives of least importance for both junior high/middle school teachers are material symbols, having their name listed in a publication, and assignment with special prestige.

The ranking of attitudes about extrinsic incentives by metropolitan or suburban area is indicated in Table 16. Metropolitan teachers ranked health insurance (4.88), job security (4.75), and competitive salary (4.75) as their top incentives (>4.5) by importance. Suburban teachers ranked health insurance (4.83), job security (4.77), and competitive salary (4.69) as their highest ranking. Incentives with the highests ranking for both groups include health insurance, competitive salary, and job security.

The incentives of least importance (<3.0) to metropolitan teachers were material symbols (1.96), having their name listed in a publication (2.43), and assignment with special prestige (2.88). Suburban teachers indicated material symbols (1.89), having their

Table 16

Rankings of attitudes about extrinsic incentives by area (n=237)

Incentive	Metropolitan (n=134) Mean (Rank)	Suburban (n=103) Mean (Rank)
Merit Pay	3.47 (19)	3.17 (22)
Bonus Pay	3.67 (18)	3.45 (20)
Competitive Salary	4.75 (2)*	4.69 (3)
Finan. Support/Workshops	4.39 (6)*	4.45 (5)
Finan. Support/Accom. Projects	4.18 (11)	3.97 (16)
Good Physical Surroundings	4.11 (13)	4.16 (14)*
Material Symbol	1.96 (24)	1.89 (26)
Mater. Support/Demonstrated Skills	4.10 (14)*	4.19 (11)
Public Recognition from Supervisor	3.38 (20)	3.16 (23)
Name Listed in Publication	2.43 (23)	2.26 (25)
Select from Array of Benefits	4.10 (14) *	4.18 (12)
Annuity	3.91 (15)	3.87 (18)
Leave with Pay	4.22 (10)	4.17 (13)
Sabbatical	3.21 (21)	3.34 (21)
Salary Inc./More Higher Education	4.39 (6)*	4.40 (4)
Disability Insurance	4.31 (8)	4.28 (7)
Pay for Unused Leave	4.40 (5)	4.22 (10)
Life Insurance	4.43 (4)	4.23 (9)
Health Insurance	4.88 (1)	4.83 (1)
Tuition Reim./Professional Growth	4.46 (3)	4.33 (6)
Pos. Feedback from Principal in Teacher Evaluation Process	4.27 (9)	4.16 (14)*
Working with People Liked	4.33 (7)	4.26 (8)
Assignment with Special Prestige	2.88 (22)	2.71 (24)
Career Ladder	3.80 (17)	3.62 (19)
Clerical/Aide Assistance	3.85 (16)	3.93 (17)
Informal Pos. Feedback from Prin.	4.13 (12)	4.15 (15)
Job Security	4.75 (2)*	4.77 (2)

*Notes tie ranking

name listed in publication (2.26), and assignment with special prestige (2.71) as the least important. The incentives of least importance for both groups include material symbols, having their name listed in a publication, and assignment with special prestige.

The ranking of attitudes about extrinsic incentives by degree earned is indicated in Table 17. Teachers who have earned Bachelor's Degrees ranked health insurance (4.89), job security (4.77), competitive salary (4.71), tuition reimbursement for professional growth (4.61), and salary increases for more higher education (4.57) as their top incentives (>4.5) by importance. Teachers who have earned Master's Degrees ranked health insurance (4.80), job security (4.77), and competitive salary (4.71) as their highest ranking. Both groups include health insurance and job security.

The incentives of least importance (<3.0) to teachers who have earned Bachelor's Degrees were material symbols (1.86), having their name listed in a publication (2.17), and assignment with special prestige (2.75) as the least important. Teachers who have earned Master's Degrees indicated material symbols (1.90), having their name listed in publication (2.45), and assignment with special prestige (2.71) as the least

Table 17

Rankings of attitudes about extrinsic incentives by degree (n=239)

Incentive	Bachelor's (n=118) Mean (Rank)	Master's (n=121) Mean (Rank)
Merit Pay	3.42 (19)	3.19 (20)
Bonus Pay	3.59 (18)	3.51 (18)
Competitive Salary	4.71 (3)	4.71 (3)
Support/Workshops	4.44 (6)*	4.39 (4)
Finan. Support/Accom. Projects	4.18 (11)*	3.99 (14)
Good Physical Surroundings	4.11 (14)	4.07 (13)
Material Symbol	1.86 (24)	1.90 (24)
Mater. Support/Demonstrated Skills	4.18 (11)*	4.08 (12)
Public Recognition from Supervisor	3.24 (21)	3.25 (19)
Name Listed in Publication	2.17 (23)	2.45 (23)
Select from Array of Benefits	4.14 (13)	4.09 (11)*
Annuity	3.92 (16)	3.82 (15)
Leave with Pay	4.26 (10)	4.09 (11)*
Sabbatical	3.25 (20)	3.02 (21)
Salary Inc./More Higher Education	4.57 (5)	4.22 (6)*
Disability Insurance	4.37 (8)*	4.21 (5)*
Pay for Unused Leave	4.40 (7)	4.25 (7)
Life Insurance	4.44 (6)*	4.26 (8)
Health Insurance	4.89 (1)	4.80 (1)
Tuition Reim./Professional Growth	4.61 (4)	4.22 (6)*
Pos. Feedback from Principal in Teacher Evaluation Process	4.25 (9)	4.15 (9)
Working with People Liked	4.37 (8)*	4.21 (5)*
Assignment with Special Prestige	2.75 (22)	2.71 (22)
Career Ladder	3.79 (17)	3.57(17)
Clerical/Aide Assistance	3.97 (15)	3.74 (16)
Informal Pos. Feedback from Prin.	4.13 (12)	4.12 (12)
Job Security	4.77 (2)	4.77 (2)

*Notes tie ranking

important. The incentives of least importance to both teachers who have earned Bachelor's degrees and teachers who have earned Master's degrees are material symbols and having their name listed in a publication.

The ranking of attitudes about extrinsic incentives by various ranges of years of teaching experience is indicated in Table 18. Teachers who have 0-4 years of experience ranked health insurance (4.74), tuition reimbursement for professional growth (4.62), and job security/competitive salary (4.56), as their top incentives (>4.5) by importance. Teachers who have 5-10 years of experience ranked job security (4.71), health insurance (4.61), and competitive salary (4.51) as their highest ranking. Teachers who have 11-15 years of experience ranked health insurance (4.89), job security (4.87), competitive salary (4.84), and salary increase for more higher education (4.60) as their highest ranking. Teachers who have 16-20 year of experience ranked health insurance (4.89), competitive salary (4.75), and job security (4.65) as their highest ranking. Teachers who have over 20 years of experience ranked health insurance (5.05), job security (4.92), competitive salary (4.82), life insurance (4.77), and disability insurance (4.67) as their highest ranking.

Table 18

Rankings of attitudes about extrinsic incentives by ranges of years of teaching experience (n=246)

Incentives	(n=39 0-4	41 5-10	45 11-15	55 16-20	66) 21+
Merit Pay	3.69 (16)*	3.27 (18)	3.38 (20)	3.02 (22)	3.41 (20)
Bonus Pay	3.90 (14)	3.51 (17)	3.42 (19)	3.53 (18)	3.56 (19)
Comp. Salary	4.56 (3)*	4.51 (3)	4.84 (3)	4.75 (2)	4.82 (3)
Fin. Supp./Wkshps	4.33 (5)	4.49 (4)	4.44 (5)	4.36 (5)	4.39 (9)
Fin. Supp/ Projects	4.18 (8)*	4.07 (9)	3.93 (13)	4.13 (10)	4.08 (17)
Gd. Phys. Surround.	4.16 (9)	3.95 (12)*	4.16 (11)	3.98 (16)	4.30 (13)*
Material Symbol	1.87 (21)	1.90 (23)	1.98 (24)	1.73 (25)	1.98 (25)
Mat. Supp. fr Skills	4.10 (10)	4.15 (8)*	3.91 (14)	4.11 (11)	4.33 (11)
Pub. Recog. fr/Sup.	3.28 (17)	3.29 (19)	3.22 (21)	3.11 (20)	3.30 (22)
Name List/Public.	2.31 (20)	2.46 (22)	2.44 (23)	2.20 (24)	2.33 (24)
Array of Benefits	3.97 (13)	4.00 (11)	3.89 (15)	4.04 (13)	4.55 (6)
Annuity	3.69 (16)*	3.76 (14)	3.84 (16)	4.01 (15)	3.98 (18)
Leave with Pay	4.18 (8)*	4.17 (7)	3.98 (12)*	4.29 (8)*	4.27 (14)
Sabbatical	3.23 (18)	3.07 (20)	3.02 (22)	3.04 (21)	3.33 (21)*
Salary Inc/More Ed.	4.49 (4)*	4.24 (6)	4.60 (4)	4.33 (6)	4.32 (12)
Disability Insurance	4.05 (11)	3.90 (13)	4.22 (9)*	4.38 (4)*	4.67 (5)
Pay for Unused Lve.	4.21 (7)*	4.00 (11)	4.33 (7)*	4.31 (7)	4.50 (8)
Life Insurance	4.49 (4)*	4.05 (10)*	4.18 (9)*	4.18 (9)	4.77 (4)
Health Insurance	4.74 (1)	4.61 (2)	4.89 (1)	4.89 (1)	5.05 (1)
Reim./Prof. Growth	4.62 (2)	4.41 (5)	4.40 (6)	4.38 (4)*	4.30 (13)*
Pos. Fdback fr/Princ Tchr Eval Proc.	4.28 (6)	4.15 (8)*	4.27 (8)	4.02 (14)	4.35 (10)
Wrkg w/Pple Likd	4.21 (7)*	3.95 (12)*	4.33 (7)*	4.29 (8)*	4.53 (7)
Assign w/Sp. Prtige	3.03 (19)	2.63 (21)	2.76 (18)	2.55 (23)	2.91 (23)
Career Ladder	3.87 (15)	3.54 (16)	3.98 (12)*	3.31 (19)	3.33 (21)*
Clerical/Aide	3.69 (16)*	3.63 (15)	3.78 (17)	3.84 (17)	4.15 (16)
Infor. Pos/Fdback fr. Prin.	4.03 (12)	4.05 (10)*	4.18 (10)	4.07 (12)	4.24 (15)
Job Security	4.56 (3)*	4.71 (1)	4.87 (2)	4.65 (3)	4.92 (2)

*Notes tie ranking

All groups include health insurance, competitive salary, and job security.

The incentives of least importance (<3.0) to teachers who have 0-4 of experience were material symbols (1.87) and having their name listed in a publication (2.31) as the least important. Teachers who have 5-10 years of experience indicated material symbols (1.90), having their name listed in publication (2.46), and assignment with special prestige (2.63) as the least important. Teachers who have 11-15 years of experience indicated material symbols (1.98) and name listed in publication (2.44) as the least important. Teachers who have 16-20 years of experience indicated material symbols (1.73), name listed in publication (2.20), and assignment with special prestige (2.55) as the least important. Teacher who have 20 or more years of experience indicated material symbols (1.98), name listed in publication (2.33), and assignment with special prestige (2.91) as the least important.

All groups shared material symbols and having their name listed in a publication as least important.

The ranking of attitudes about extrinsic incentives by subject areas of required, elective, and both required and elective is indicated in Table 19. Teachers

Table 19

Rankings of attitudes about extrinsic incentives subject area (n=250)

Incentive	Required (n=34) Mean(Rank)	Elective (n=29) Mean(Rank)	Both (n=187) Mean(Rank)
Merit Pay	3.56 (20)	3.79 (16)	3.25 (21)*
Bonus Pay	3.41 (21)	3.90 (15)	3.59 (20)
Competitive Salary	4.65 (3)	4.93 (1)	4.71 (3)
Finan. Support/Att. Wrkshps.	4.29 (14)	4.31 (5)	4.50 (4)
Finan. Support/Acc. Projects	3.94 (16)	4.00 (12)	4.15 (15)*
Good Physical Surroundings	4.32 (9)*	4.03 (11)	4.11 (16)
Material Symbol	2.26 (26)	2.14 (22)	1.83 (24)
Mat. Support/Demon. Skills	4.15 (13)	3.97 (13)*	4.20 (13)
Public Recognition fr. Super.	3.24 (22)	3.45 (18)	3.25 (21)*
Name Listed in Publication	2.50 (25)	2.59 (21)	2.31 (23)
Select from Array of Benefits	3.85 (18)	4.38 (4)	4.16 (14)
Annuity	3.91 (17)	3.93 (14)*	3.90 (17)
Leave with Pay	4.23 (11)	4.07 (10)	4.23 (12)
Sabbatical	2.91 (24)	2.93 (19)	3.23 (21)*
Salary Inc./More Higher Ed.	4.41 (7)	4.17 (9)	4.30 (9)
Pay for Unused Leave	4.18 (12)	4.28 (6)	4.34 (8)
Life Insurance	4.32 (9)*	4.07 (10)	4.45 (6)
Health Insurance	4.74 (2)	4.83 (2)	4.91 (1)
Tuition Reim./Prof. Growth	4.26 (10)	4.24 (7)	4.48 (5)
Pos. Feedback from Principal in Teacher Evaluation Process	4.47 (6)	3.93 (14)*	4.25 (11)
Working with People Liked	4.58 (4)	4.14 (8)	4.29 (10)
Assignment with Sp. Prestige	3.06 (23)	2.76 (20)	2.75 (22)
Career Ladder	3.79 (19)	3.97 (13)*	3.65 (19)
Clerical/Aide Assistance	4.35 (8)	3.93 (14)*	4.15 (15)*
Job Security	4.85 (1)	4.62 (3)	4.79 (2)

*Notes tie ranking

who teach required sujects only ranked job security (4.85), health insurance (4.74), competitive salary (4.65), and working with people they like (4.58) as their top incentives (>4.5) by importance. Teachers who teach elective subjects only ranked competitive salary (4.93), health insurance (4.83), and job security (4.62) as their highest ranking. Teachers who teach both required and elective subjects ranked health insurance (4.91), job security (4.79), competitive salary (4.71), and financial support for workshops (4.50) as their highest ranking. All groups included health insurance, competitive salary, and job security.

The incentives of least importance (<3.0) to teachers who teach required subjects only indicated material symbols (2.26), having their name listed in a publication (2.50), and sabbatical (2.91) as the least important. Teachers who teach elective subjects only indicated material symbols (2.14), having their name listed in publication (2.59), assignment with special prestige (2.76), and sabbatical (2.93) as the least important. Teachers who teach both required and elective subjects indicated material symbol (1.83), name listed in a publication (2.31), and assignment with special prestige (2.75) as the least important.

All groups indicated as least important material symbols, having their name listed in a publication, and assignment with special prestige.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The motivation of teachers to excel as professionals and in the classroom has long been a focus of school systems. Teachers are a primary factor in student learning; therefore, school systems must address motivating teachers to perform their jobs well.

The problem leading to this study is that extrinsic incentives for teachers exist, but we do not know which work and we do not know how a teacher's motivation orientation effects the teachers attitude about receiving extrinsic incentives.

Various forms of incentives have been employed by organizations and school systems since the early part of this century. Researchers indicate that a teacher's values, the community culture, and the school culture have an impact on what motivates a teacher to perform his or her job well (Lortie, 1975). School systems attempt to address each of these impactors by creating varying forms of incentives for teachers.

Purpose

The purpose of the researcher was to determine the motivation orientation of secondary public school teachers and whether there was a predictive relationship between their orientation and their attitudes about extrinsic incentives offered by school systems. Additionally, the study investigated whether there was a predictive relationship between the independent variables of gender, building level configuration, metropolitan/surburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area.

Procedures

To obtain the necessary data, a survey instrument was developed by the researcher and administered by mail during the spring of 1993. The subjects for this study consisted of public secondary school teachers in a metropolitan Nebraska public school system and in surrounding suburban school systems. A sample of 380 teachers were surveyed; the response rate was 65.7 percent.

The survey instrument consisted of a total of 60 forced choice pairings to determine motivation orientation and 27 descriptions of extrinsic incentives

offered by school systems. Respondents were asked to mark a 5-point Likert-type scale ranging from "Not Important" to "Extremely Important" on the extrinsic incentive section of the survey. Teacher's motivation orientation was determined by the responses of teachers to Part I of the survey.

In Part II of the survey mean scores were used to establish a ranking to show the degree of importance attributed to each described incentive by respondents representing the independent variables of gender, building level configuration, metropolitan/surburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area.

To address the research question of whether there was a predictive relationship between a teacher's motivation orientation and their attitudes about extrinsic incentives offered by school systems, a multiple regression analysis was applied. A significance level of $p < .05$ was used to determine whether a predictive relationship existed. The multiple regression was also applied to determine whether there was a predictive relationship between gender, building level configuration, metropolitan/surburban area, level and

degree of educational preparation, years of teaching experience, and required/elective subject area on attitudes about extrinsic incentives offered by school systems.

Summary of Findings

The study determined there was a predictive relationship between a teacher's motivation orientation and their attitudes about extrinsic incentives offered by school systems at the .00 level ($p<.05$).

A predictive relationship between a teacher's motivation orientation and gender, building level configuration, metropolitan/surburban area, level and degree of educational preparation, years of teaching experience, and subject area (required and elective) was not indicated.

An important observation noted in the study was that more than half of public secondary public school teachers can be motivated extrinsically. This finding has important implications for school systems in that they may plan for extrinsic incentives to motivate teachers.

Extrinsic incentives offered by school systems that were perceived and ranked as the most motivating were

(1) health insurance, (2) job security, (3) competitive salary, (4) financial support for workshops and classes, and (5) life insurance.

Conclusions and Recommendations

When a teacher's motivation orientation was determined to be extrinsic, the teachers in this study expressed significantly positive attitudes toward extrinsic incentives offered by school systems. Variables of gender, building level configuration, metropolitan/surburban area, level and degree of educational preparation, years of teaching experience, and required/elective subject area did not significantly impact attitudes about extrinsic incentives offered by school systems significantly.

These conclusions are consistent with the theory forwarded by Maslow (1943, 1970) who suggested that motivation based on a hierarchy of needs including safety and belonging. The researcher findings of the apparent need for job security as an important motivator to teachers was consistent with this theory.

Conclusions also support the work of Brayfield and Crockett (1955), Vroom's valence theory (1964), and Skinner's (1971) concept of manipulation of the

environment and the value of extrinsic incentives to meet individual needs and desires. They concluded that individual motivational differences and perceptions must be considered when developing methods to motivate individuals. They also noted that the value or attractiveness of a given outcome or reward to the individual will influence their motivation.

Lortie's (1975) findings indicated that the values, motivation orientation, and community or work place culture contribute to teachers attitudes about extrinsic incentives offered by the work organization. This is consistent with association between motivation orientation and attitudes about incentives discussed in this study.

An important finding in this study was that four out of five teachers surveyed indicated an extrinsic motivation orientation. This information should be of great interest to school systems. It is clear that school systems can motivate teachers to do a better job by offering them incentives that they find appealing.

The incentives offered by school systems that were described as the most motivational included those that offered security to teachers. It is interesting to note that teachers representing the demographic groups

surveyed (gender, building level configuration, metropolitan/suburban area, level and degree of educational preparation, years of teaching experience and required/elective subject area) favored incentives such as health insurance, life insurance, and job security. The incentive of a sense of security suggests that teachers are more interested in maintaining a safe and secure job environment rather than the more risk taking environment associated with other businesses. This finding is consistent with the findings of Lortie (1975) who stated that teaching is a relatively careerless occupation. The primary benefits are earned by persistence in teaching. The teacher incentive system has not traditionally been organized to respond to variations of effort and talent among teachers. Those who select teaching as a profession and remain in teaching know that there is a degree of security in job retention, incremental salary increases, and benefits. It is implied that if a teacher follows the prescribed steps then raises and benefits will follow.

The interest in a sense of security may also have implications for change in school systems. Change of any significance calls for taking risks. All implications of making a change cannot be predicted and the results

cannot be assured. Teachers may be less likely to be open to significant systems changes as a result of their need for security.

Respondents in the study did not rate highly the incentives that provide recognition to teacher performance. For all independent variables incentives that provide job security were rated the highest. It is possible that, although recognition may make teachers "feel good," it does not motivate them to improve their job performance. Further studies to determine the significance of "feeling good" and motivation to improve job performance may be of value.

Practical significance, in examining aspects of motivation orientation and the effects of extrinsic incentives, may be to improve current motivational practices by suggesting ways in which specific incentives might be linked to teachers holding a particular motivation orientation. A teacher oriented in a particular direction, toward extrinsic or intrinsic motivation, matched with a specific incentive valued by the teacher, may improve his or her motivation to grow professionally and teach well.

Similar studies may be conducted to further research motivation orientation, the value of extrinsic

incentives, and the relationship between an individual's motivation and his/her response to extrinsic incentives. Other variables such as ethnicity, socio-economic status, environment and education level, life satisfaction, and how they might effect motivation orientation may also be included.

Teachers in this study indicated that many of the extrinsic incentives described as being used by school systems will help motivate them to do their jobs better. The following recommendations are offered as possible avenues toward extrinsically motivating teachers to perform better as professionals and classroom teachers.

School systems should establish long-term benefits that contribute to a sense of security for teachers. It is clear that this form of motivation is the most important to teachers.

Further, school systems and/or building principals should make formal or informal attempts to determine whether a teacher is receptive to extrinsic motivators as described in this study. This could be accomplished through surveys, interviews, or other identified measures. Upon determining the teacher's motivation orientation, the school systems and/or principal should

provide incentives that are found to be practical and appealing to the teacher.

Fox (1986) and Adams and Bailey (1989) found that building principals can effectively raise teacher self-esteem through recurring compliments, imagery, social reinforcement, and trust. This study reinforces this finding. Principals should use positive feedback in varying forms to motivate teachers.

Secondary public school teachers in a metropolitan school systems and secondary public school teachers in the surrounding suburbs were surveyed in this study. It may prove of interest to compare these responses to responses provided by secondary public school teachers in smaller school systems, elementary schools, private schools, and in other geographic areas to determine whether the findings are supported in other settings.

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APPENDIX A
CONSENT TO USE JOB ATTITUDE SCALE

February 17, 1993

Shoukry D. Saleh, Ph. D.
Department of Management Sciences
University of Waterloo
Ontario, Canada N2L, 3GI

Dear Professor Saleh,

Recently I sent for a copy of the Job Attitude Scale (JAS) and have talked to you on a couple of occasions in regard to the instrument. You verbally consented to my using your instrument in part of my survey research.

I would like to request your written permission to use the JAS as a part of a dissertation study I am conducting with secondary school teachers. The title of the study is Teachers' Motivation Orientation And Their Attitudes About Extrinsic Incentives. I am proposing to use the JAS to determine the teacher's motivation orientation and then to design further questions to determine their attitudes toward specific extrinsic incentives offered by school systems.

I am also requesting permission to substitute the term "principal" for the word "supervisor" in the survey.

Please sign the attached forms and return them in the stamped envelope provided at you earliest convenience.

Thank you for the information you have been willing to share with me to date.

Respectfully,

Judith E. Porter

CONSENT FORM

I grant my permission and consent to Judith E. Porter to use the Job Attitude Scale (JAS), copyrighted in 1971 and 1988, to pursue her study of the motivation orientation of secondary school teachers in the study entitled Teachers' Motivation Orientation And Their Attitudes About Extrinsic Incentives.

I further provide consent for the term "supervisor" in the JAS to be changed to "principal".

Sindy D. Sabin
(Signature)

Feb 25 '93
(Date)

APPENDIX B
AUTHORIZATION OF REVIEW BOARD

University of Nebraska
Institutional Review Board
For the Protection of
Human Subjects

University of Nebraska Medical Center
Eppley Science Hall 3018
600 South 42nd Street
Omaha, NE 68198-3510
402/559-6463
Fax 402/559-7845

March 12, 1993

Judith Porter
Educational Administration
1320 Camp Gifford Road
Bellevue NE 68005
UNO

IRB # 264-93-EX

TITLE OF PROTOCOL: Teachers' Motivation Orientation and Their Attitudes About Extrinsic Incentives

Dear Ms. Porter:

The IRB has reviewed your Exemption Information Form for the above-titled research project. According to the information provided this project is exempt under 45 CFR 46:101B. You are therefore authorized to begin the research.

It is understood this project will be conducted in full accordance with all applicable sections of the IRB Guidelines. It is also understood that the IRB will be immediately notified of any proposed changes that may affect the exempt status of your research project.

Sincerely,

E Prentice/abk

Ernest D. Prentice, Ph.D.
Vice Chairman, IRB

EDP/abk

University of Nebraska
Institutional Review Board
For the Protection of
Human Subjects

University of Nebraska Medical Center
Eppley Science Hall 3018
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May 7, 1993

Judith E. Porter
Educational Administration
1320 Camp Gifford Road
Bellevue, NE 68005
UNO

IRB # 264-93-EX

TITLE OF PROPOSAL: Teacher's Motivation Orientation and Their Attitudes About Extrinsic Incentives

Dear Ms. Porter:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol and/or consent form modifications submitted in your letter to the IRB dated April 13, 1993.

This letter constitutes official notification of the approval of the protocol and/or consent form change. You are therefore authorized to implement this change accordingly.

Sincerely,

E Prentice

Ernest D. Prentice, Ph.D.
Vice Chairman, IRB

EDP/abk

APPENDIX C
PILOT LETTER AND SURVEY

APPENDIX D
SURVEY

APPENDIX E
SCHOOL AUTHORIZATION TO SURVEY

1320 Camp Gifford Road
Bellevue, Nebraska 68005
April 22, 1993

Dear Dr. ,

I am presently a doctoral candidate at the University of Nebraska-Lincoln, under the supervision of Dr. Donald Uerling. The purpose of my dissertation is to determine a secondary teacher's motivation orientation (intrinsic or extrinsic) and their attitudes about extrinsic incentives generally offered by school systems.

A survey instrument has been developed to gather information from secondary teachers. The _____ public secondary school system and the _____ suburban public secondary school systems have been selected for this study. I am requesting your authorization to include approximately 200 secondary teachers from your school system in my sample. The survey would be sent to randomly selected secondary teachers at their respective schools in your school system during the first week of May. Information gained through the research will be held in confidence. No individual teacher, school, or school district will be identified in any way in reporting the results of the findings or in any publication describing the study. All information will be reported in an aggregated form.

The questionnaire along with an authorization form is enclosed. Your cooperation would be greatly appreciated.

I would be pleased to answer any questions you might have. Please feel free to call me at 293-4260.

Sincerely,

Judith E. Porter

Enclosure

I authorize Judith E. Porter to randomly survey selected secondary teachers in the _____ school system for the purpose of determining their attitudes about extrinsic incentives generally offered by school systems.

The survey will be sent to selected teachers during the first week of May. Findings of the study will be reported in summary form and will not identify individual teachers, the names of schools or the name of the school district.

_____

(Signature)

_____

(Title)

_____

(Date)

APPENDIX F
LETTER TO SURVEY SUBJECTS

April 28, 1993

1320 Camp Gifford Road
Bellevue, Nebraska 68005

Dear Professional Educator,

Teacher attitudes toward extrinsic incentives offered by school systems may impact the effectiveness of the incentives offered to teachers. I am requesting your assistance in completing a questionnaire to aide me in my doctoral research at the University of Nebraska-Lincoln. Your participation is important. The purpose of the research is to determine a teacher's motivation orientation and then to determine a teacher's attitude toward extrinsic incentives offered by school systems.

You have been selected through a random selection process. Your name was drawn randomly in a sample of all secondary teachers in the Omaha and suburban Omaha public school districts. In order for the results of the research to be truly representative of secondary teachers in the metro area, it is important that the questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so I may check your name off of the mailing list when your questionnaire is returned. Your name, the name of your school, and the name of your school district will not appear on any reported findings.

Thank you for your cooperation and assistance.

Sincerely,

Judith E. Porter

APPENDIX G
FOLLOW-UP MAILING TO SURVEY SUBJECTS

May 12, 1993

Dear Professional Educator,

Recently you received a questionnaire entitled "ATTITUDE TOWARD INCENTIVES". This questionnaire is part of the doctoral research I must complete for my dissertation.

I know it is a hectic time of year for you in preparing for school-close this year. However, I would really appreciate your assistance by asking you to complete the questionnaire and to return it in the stamped envelope enclosed with the questionnaire.

Thank you for your involvement.

Gratefully,

Judith E. Porter