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The examination of position selection, job provisions, working environment satisfaction on teaching performance and commitment

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The examination of position selection, job provisions, working environment satisfaction on teaching performance and commitment

by

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DEDICATION

Achievement cannot be attained without support. For providing that very necessary support, I dedicate this phase of my achievement to My Aunt Kim. Four years ago you planted a seed. I am grateful you are an expert gardener. After you planted the seed you remained to water and nurture. I realize I was not always an easy recipient of your nurturing. For three years you always knew when and what weeds to pull. I will always be appreciative of you.

It is chance that makes relatives but heart that makes friends. I will be eternally thankful for the chance life gave me. Even more, I will be eternally thankful for the courage I was given to open my heart and make a friend. A journey seems shorter with good company. Thank you for making this journey as short as possible.

With this dedication I hope you understand what an integral part you have played in the entire process. This dedication is one small way of trying to show how much I love you. It is also my way of reaching closure and saying, "It has been a Big Deal."

MEMORIAM

It is sad to realize so much inspiration comes from the love in our hearts generated by those who are no longer with us physically. For that reason this is the only way I know to say thanks to my beloved Joe, Aunt Azalee, and Aunt Zillah.

CHAPTER I. INTRODUCTION

Background

The performance and school commitment of teachers who survive their first few years of teaching suffer considerably. Teachers with the potential for making the greatest academic contributions to schools are also most likely to defect earliest (Schlechty & Vance, 1983; Farber, 1984; Mark & Anderson, 1985). Fortunately, a growing body of research on the organizational conditions of teaching suggests that this problem is retractable and might even be reversible (Rosenholtz, 1989).

Ernest Boyer (1988) expressed the need to attract and retain outstanding teachers even considering the substantial gains made in the profession since 1983. He states that Americans have begun to view teachers as part of the solution, not the problem. In the past five years, teacher training has improved, certification has been tightened, national teacher organizations have constructively modified their stance, and teacher salaries have gone up. Boyer adds the caution:

> Even with substantial gains, the profession of teaching in the United States will remain imperiled--not because salaries or credentialing standards are too low--but because day-to-day conditions in the schools leave many teachers more responsible, but less empowered (p. 62).

One of the primary goals of research on teaching and effective school research is to improve individual and collective teaching performance. A requirement of effectively changing the behavior of individuals is to enlist cooperation and motivation of the individual in addition to providing guidance on the steps needed for improvement. Two important conditions must be developed in individuals for change to occur. First, knowledge that a course of action is the correct one; second, a sense of empowerment or efficacy, that is, a perception that pursuing a given course of action is both worthwhile and possible (Darling-Hammond, Wise, & Pease, 1983).

Fenstermacher (1978) argues that "if our purpose and intent are to change the practices of those who teach, it is necessary to come to grips with the subjectively reasonable beliefs of teachers" (p. 174). To follow Fenstermacher's view would be a process entailing the creation of internally verifiable knowledge rather than the imposition of rules for behavior.

Incorporating an intentionalist thesis assumes: (a) that teachers are rational professionals who make judgements and carry out decisions in an uncertain, complex environment and (b) that teachers' behaviors are guided by their thought, judgement, and decisions (Shavelson & Stern, 1981).

Transformation of belief structures and knowledge in a manner that allows for situation-specific applications is a requirement for behavior change.

Good and Power (1976) apply this notion to the effective use of teaching theory:

> At best, generalizations about teaching derived from research act as guides to assessing the likely consequences of alternative strategies in complex educational situations. Such generalizations must necessarily be indeterminate since they cannot predict precisely what will happen in a particular case. But this does not decrease their value for the teacher.... Theories can be of value in specifying those dimensions which are relevant to the understanding of classroom phenomena, can extend the range of hypotheses (alternative strategies) considered, and sensitize the teacher to the possible consequences of his actions. Indeed, ultimately, the validity and usefulness of theory may rest in the hands of teachers...that is, whether it sensitizes them to the classroom context, helps them make more informed decisions, and to monitor their own behavior. (p. 58)

A decade has passed since "improving teacher quality" was the most frequent response to the 1979 Gallup Poll's question on what public school could do to earn an "A" grade. In response to that perception, states and local school districts initiated a wide range of policy changes affecting the certification, evaluation, and tenure of both prospective and currently employed teachers (Gudridge, 1980; Vlaanderen, 1980).

Forty-six states have adopted teacher competency tests for certification; others are considering licensure which would include statewide teacher examination prior to certification along with the establishment of a professional standards and practices board (Lewis, 1982; McNeil, 1981; Vlaanderen, 1980).

Thus, the teaching profession in the United States is at a crossroads. There are efforts to improve the knowledge base for teaching and its transmission to teachers and to create school conditions under which teachers may attend more directly to the needs of their students (Darling-Hammond, 1988).

Need for the Study

Those teachers who show the most potential of making the greatest academic contributions are most likely to defect earliest in their careers. The commitment and performance of those who stay suffer considerably (Rosenholtz, 1989). Attaining knowledge, transforming operations, and articulation of skills are necessary but insufficient for accomplished performance (Bandura, 1982). Holdaway (1978) discussed the need of research projects that examine the relationships between teacher effectiveness and variables such as working conditions and personal-environmental facets. He added that the relationships

between performance and overall and facet satisfaction were worthy of detailed research.

Statement of the Problem

The problem of this study is to explore the direct effects among position selection, job provisions, and satisfaction with the working environment with teaching performance, teaching efficacy, and commitment as measured by data from the Five-Year Follow-up Study of Teacher Education Graduates of Iowa State University.

Purpose of the Study

Perceptions of the position selection, job provisions, and satisfaction in the working environment, and the relationship of these to teaching performance, efficacy, and commitment need further study. Thus, the purpose of this study is to examine the influence of job selection and provisions as well as satisfaction with the working environment on teaching performance, sense of teaching efficacy, and commitment of Iowa State University teacher education graduates using data collected five years following their graduation. As a result of this, the intricacies and complexities of teaching performance, sense of teaching efficacy, and commitment to a career in teaching will be clarified.

Objectives of the Study

In order to accomplish the purpose of this study, the following objectives will be fulfilled:

1. Develop a conceptual model which shows the relationship between variables representing position selection, provisions in the job, satisfaction with the work environment, teaching performance, sense of teaching efficacy, and commitment variables.

2. Test the model (Figure 1) developed in Objective 1 with empirical data in order to discover possible cause-and-effect patterns among variables.

The testing of this model will examine the relationship, if any, among the suggested variables. This will contribute information which will help explain the complex phenomena of teaching performance, efficacy, and commitment to teaching as a career.

Research Questions

The following specific questions will be investigated:

1. Does the importance of position selection and job provisions have a direct effect on the satisfaction with the working environment?

2. Does the importance of position selection, job provisions, and satisfaction of the working environment have a direct effect on teaching performance?

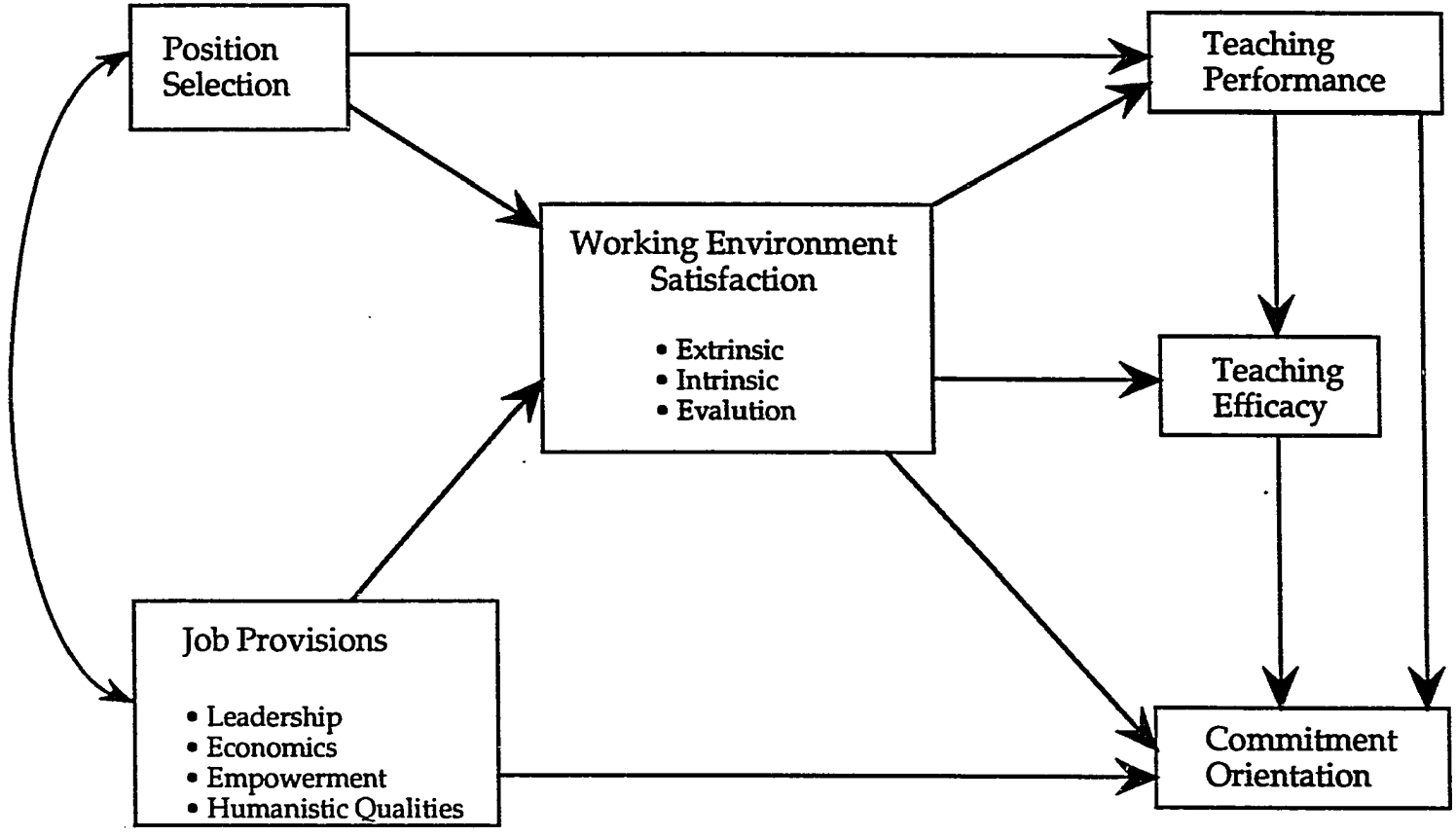

Figure 1. Hypothetical model

3. Does position selection, job provisions, satisfaction with the working environment, and teaching performance have a direct effect on sense of teaching efficacy?

4. Does position selection, job provisions, satisfaction with the working environment, teaching performance, and sense of teaching efficacy have a direct effect on commitment?

These four questions will be addressed using path analysis. Discriminant analysis will be used to answer questions concerning commitment. The final research question is:

5. Does position selection, job provisions, satifaction with the working environment, teaching performance, sense of teaching efficacy, and commitment orientation have a direct effect on commitment?

Data Source

The Research Institute for Studies in Education (RISE) at Iowa State University began implementation of comprehensive follow-up studies designed to evaluate and improve the teacher preparation program at Iowa State University in 1980. These studies were designed to be longitudinal and include the collection of data from teacher education students and graduates at major points in their preparation and careers. Three of these key data collection points include the semester of graduation from the program, one year following graduation, and five years following graduation. These data provide information about the

attitudes, competencies, personal characteristics, and career paths of the teacher education students and graduates at various stages in their career development. This study utilized data collected at the five year point in time to examine the influence of various factors on the perceived performance of the Iowa State University (ISU) teacher education graduates.

Research Hypotheses

In order to fulfill the objectives of this study two hypotheses were tested.

Hypothesis 1: The major hypothesis of this study was to test the multivariant theoretical model (Figure 1).

Hypothesis 2: The variables identified in the theoretical model will have a positive effect on teacher commitment.

Assumptions of the Study

This study was based upon the following assumptions:

1. The instruments, survey procedures, and data collection methods used by RISE were reliable and valid.
2. Teachers have generalized attitudes toward their assessment of teaching performance.
3. Teachers have generalized attitudes toward job provisions and satisfaction with their working environment.

Definition of Terms

In order to support the hypotheses, careful definitions and operations of the variables are necessary. These definitions are based on the review of the literature concerning the variables.

Commitment Orientation: This variable is based on the definition of general satisfaction. It is a person's affective reactions to his/her total work role (Lawler, 1973).

Empowerment: The perception of teachers as to who is (should be) involved in the decision making process. It is dependent on teachers' status, knowledge, and access to lines of communication (Glass, 1989; Maeroff, 1988).

Extrinsic: Behavior created by events or rewards outside the individual (Moore, 1989).

Facet Satisfaction: Teachers' affective reactions to particular aspects of their job (Lawler, 1973).

Intrinsic: Behavior that comes from within. It is associated with activities that are rewarding in themselves (Moore, 1989).

Personal Teaching Efficacy: Teachers' perceptions of performance behaviors that influence positive learning outcomes (Ashton & Webb, 1986; Fuller et al., 1982).

Provisions of the Job: These are the organizational conditions provided in the teaching situation. They are based on the natural systems model employed by social scientists and refer to the environment in which a teacher can practice his or her profession (Darling-Hammond, Wise, & Pease, 1983).

Teacher Commitment: The extent of teachers' work investment, performance quality, satisfaction, and desire to remain in the profession (Rosenholtz, 1989).

Teaching Performance: The set of activities by which the teacher establishes and maintains those classroom conditions which facilitate effective and efficient instruction (Cooper et al., 1986).

Working Environment: The ecological (physical and material aspects), the milieu (the social dimension concerned with the presence of persons and groups), the social system (the social dimension concerned with the patterned relationships of persons and groups), and its culture (the social dimension concerned with belief system, values, cognitive structures, and meaning) of the school (Tagiuri, 1968).

Organization of the Study

Chapter I presents the introduction and background of the study. Chapter II presents the review of the literature including the theoretical and empirical literature related to school environmental factors, satisfaction variables, perception, performance, and efficacy. This discussion provides the basis for the development of the model and the hypotheses to be examined in the study.

Chapter III presents the methodology and design of the study. A discussion of the data source and collection, population and samples, instrumentation, measurement and operationalization of the variables, and the data analysis techniques employed is incorporated in this chapter.

Chapter IV presents the results of the data analyses and testing of the model. The findings from the testing of each portion of the model are presented and interpreted.

Chapter V presents a summary of the study; a discussion of the major findings; discussions of the correlational data, the hypothesized model, and of the discriminant analysis; limitations of the study; and recommendations for further research.

CHAPTER II. REVIEW OF LITERATURE

Theoretical Background

The basic theory underlying this research is that the behavior of teachers in the classroom, especially those perceived performance behaviors, is partly a function of teachers' position selection, job orientation and their satisfaction with the pertinent variables. The theory is based in part on Bandura's conception of the cognitive social learning theory of self-efficacy. According to Bandura (1982), self-efficacy is a cognitive mechanism that regulates behavior. A sense of self-efficacy develops as an individual acquires a conviction of personal competence; that is, when the individual believes he or she has mastered the behaviors necessary to achieve a desired outcome. Bandura's conception differs from strict behavioristic assumptions. He contends that behavior is controlled by the individual's personal efficacy beliefs rather than by the presence of reinforcing consequences.

> In social learning theory an important cognitively based source of motivation operates through the intervening processes of goal setting and self-evaluative reaction. This form of self-motivation, which involves internal comparison processes, requires personal standards against which to evaluate performance. (p. 134)

Schunk (1984) supports Bandura's contention in studies of learning in children. Schunk's studies verify that successful performance alone does not guarantee behavior change.

Social learning theory gives recognition to the role of social reinforcements in explaining how behaviors are learned. It recognizes the importance of certain internal processes that are not directly observable but, nevertheless, are seen as underlying much of human behavior. For example, proponents of social learning theory acknowledge that a person's thoughts and feelings about a specific situation can greatly influence his or her behavior in the situation (Brodzinsky, Gormly, & Ambron, 1986).

Krumboltz (1979) argues that social learning theory can be used to identify the interaction of genetic factors, environmental conditions, learning experiences, cognitive and emotional responses, and performance skills that produce movement along one career path or another. An application of Krumboltz's social learning theory of career decisions can be offered to the particular profession of teaching (Chapman, 1983a).

Part of the theoretical background for this study is also based on Bronfenbrenner's (1976) description of an ecological analysis. Bronfenbrenner insisted that if the

scientific study of education is to be progressive, the dynamic environmental processes that promote development must be discovered. The four basic assumptions of an ecological analysis are: (1) behavior is a function of the subjective perceptions of the individual--to understand an individual's behavior, the individual's definition of the situation must be understood; (2) behavior is a function of the interaction between individuals and the various settings in which they live and work--behavior is strongly influenced by the environment; (3) behavior is influenced by the indirect influences of the others who are present in the setting as well as the direct effect between the individuals; and (4) behavior is reciprocal in social settings.

Kelley (1962) and Mead (1934) suggested that the self develops almost entirely as a result of interaction with others. This thinking implies that while both the environment and the individual play a role, the environment is more powerful. The environmental theory is further refined by the idea that the environment is screened by paying attention to those persons who are considered significant. Feedback is received and used to modify perceptions. The revised or refined sense of self is then

tested in new situations in a search for new and validating feedback from the environment (Beane & Lipka, 1986).

According to Hamachek (1978), "...people tend to behave in a manner which is consistent with what they believe to be true. In this sense, seeing is not only believing, seeing is behaving" (p. 42). Thus, if the attitudes and perceptions of teachers affect their behavior and the roles they have defined for themselves, it is important to understand these underlying beliefs, particularly since they may have impact on how teachers behave toward pupils.

In Hansford and Hattie's (1982) review concerning the relationship between self and achievement/performance measure, they state the major focus is on the person's perception of him or herself. One's experience with and interpretation of one's environment form these perceptions. According to Shavelson, Hubner, and Stanton (1976) these perceptions are influenced especially by reinforcements, evaluation by significant others, and one's attributions for one's own behavior. Wylie (1979) supports this concept in her summary. She states that many persons, especially educators, have unhesitantly assumed that achievement and ability indices are strongly related to self-assessments of achievement and ability.

Bernard Weiner's (1972, 1974) research has shown that individuals' beliefs about the causes of their successes and failures are important in understanding achievement-related behavior. His attribution theory is classified into two dimensions--stability and locus of control. The attributions of ability and task difficulty are stable in nature, whereas luck and effort change. The perception of the role of luck and effort is likely to change from one time to another. The locus of control dimension refers to whether a person's achievements are perceived as being under the person's own control or are perceived as being caused by forces external to the person.

Humanistic psychologists describe human beings as self-directed, capable of setting goals, making choices, and initiating action. Humanistic psychologists also view people as capable of making choices, and initiating action. Judging the consequences and effectiveness of their own action is also part of human capabilities. In order to function in the most effective manner and to maximize individual potential, people must first become aware of their internal thought and feelings regarding both themselves (self-perceptions) and the world at large. By consciously describing these thoughts (cognition) and

feelings (affect), people may gain an awareness of how such states influence their behavior (Cooper et al., 1986).

Commitment

One of the primary feelings that account for work commitment is performance efficacy (Gecas & Schwalbe, 1983). People's feelings are closely tied to how well they perform on the job. Where people work efficaciously, good performance is self-rewarding and provides the incentive for continuing to perform well (Hackman & Oldham, 1980). Teacher commitment may also be influenced by aspects of school structure (Ashton & Webb, 1986). Two frequently cited reasons for teacher attrition are workplace dissatisfaction and stress (Rosenholtz, 1989).

Research by Chapman and Hutcheson (1982) found that those who left teaching indicated low salary and lack of job autonomy as the most important determinants. Elementary school teachers cited that the chance to contribute to important decisions was important. The recognition and approval of other people were significant factors for those individuals who remained in the field of teaching.

Rosenholtz (1989) outlined several school conditions required for teachers' productive commitment to staying in the profession of teaching. The first, psychic rewards, is the knowledge of the success of their efforts. This allows

teachers to gain estimates of their particular worth in a performance-based context. This particular feedback is obtained directly from the work itself or from external recognition and approval offered by others who are valued within the organizational setting. Second, increased task autonomy and discretion, is to experience personal responsibility for the outcomes of work. Jobs that give people more autonomy and discretion require that they exercise judgement and choice. In doing this, they become aware of themselves as causal agents in their own performance. Finally, people must experience work as meaningful. If job performance and commitment are to be enhanced, it must be perceived as important to their personal values and beliefs. Rosenholtz looks at this final factor in two dimensions, opportunities for professional growth and teacher efficacy.

Skills that are utilized in a variety of different and increasingly challenging activities provide opportunity for professional growth and development. A sense of challenge, progress, and personal accomplishment is obtained in work opportunities that allow people to grow and develop (Hackman & Oldham, 1980). The absence of opportunities to broaden their instructional horizons is frequently cited by teachers

as a reason for absenteeism and attrition (Kasten, 1984; Rosenholtz, 1989).

Teachers with a low sense of efficacy more readily attribute teaching success and failure to outside causes. Thus, inefficacious teachers shy away from new job challenges. Those who are confident about their instructional practices are likely to confront new challenges with great optimism and effort (Ashton & Webb, 1986; Rosenholtz, 1989).

The organizational conditions of schools create some of the major problems associated with teacher quality and commitment. The essential point is that these conditions mold or influence the strategies that teachers find most acceptable and appropriate to use (Rosenholtz, 1989).

There are multiple definitions of job satisfaction and competing notions of how best to measure it. Substantial research has indicated positive relationship between career satisfaction and career persistence. Career satisfaction is an important role in teacher persistence and commitment (Chapman, 1983a).

Efficacy

Teachers' sense of efficacy has been identified as an important characteristic related to teacher effectiveness. Efficaciousness has also been a contributing factor to

efforts to improve teacher competence (Trentham et al., 1985). It has been used to conceptualize and explain individual differences in teaching effectiveness (Berman et al., 1977). Teacher efficacy has also been used to predict actual classroom teaching behavior among practicing teachers (Ashton, 1985). Prawat and Jarvis (1980) found a significant relationship between teachers' sense of efficacy and student achievement. In a study of preservice teachers, Evans and Tribble (1986) discuss the profitability of commitment and efficacy in seminars. However, researchers are not certain how to conceptualize and adequately measure the construct of efficacy (Gibson & Dembo, 1984). Based on Bandura's theory, teacher's sense of efficacy refers to situation-specific expectations of the teacher. The assumption of teacher expectations rests on how much students are capable of learning what schools have to teach. The construct indicates teachers' evaluation of their abilities to bring about positive student change. Teachers' efficacy expectations influence their thoughts and feelings, their choice of activities, the amount of effort they expend, and the extent of their persistence in face of obstacles (Bandura, 1982).

Ashton and Webb (1986) say a teacher's sense of efficacy consists of two independent dimensions. Teachers

integrate their expectations from these two dimensions into a course of action. The first dimension, teaching efficacy, is defined as the way teachers view the general relationship between teaching and learning. Ashton and Webb conceptualized this dimension into a sense of teaching efficacy. The sense of teaching efficacy refers to teachers' expectations that teaching can influence student learning. In reality, teachers with a low sense of teaching efficacy believe that some students cannot or will not learn. If the teaching efficacy is high the belief is that all students are capable of learning.

The second dimension, sense of personal teaching efficacy, is represented by an integration of teaching efficacy and personal efficacy. This refers to individuals' assessment of their own teaching competence. The perception of the teaching abilities influence their choice of classroom management and instructional strategies. Personal teaching efficacy has been viewed as the best predictor of teacher behavior (Ashton & Webb, 1986).

Conceptually, the work of Gibson and Dembo (1984) is similar to Ashton and Webb's. Whereas, Ashton and Webb use personal teaching efficacy to describe the integration of teaching efficacy and personal efficacy, Gibson and Dembo

describe the construct of teacher efficacy as an integration of teaching efficacy and personal teaching efficacy.

Teachers' evaluation of their abilities to bring about positive student change would be indicated by their self-efficacy beliefs. Teachers who believe student learning can be influenced by effective teaching, and who also have confidence in their own teaching abilities, provide a greater academic focus in the classroom, exhibit different types of feedback, and should persist longer on tasks than teachers who have lower expectations concerning their ability to influence student learning (Gibson & Dembo, 1984).

The common denominator in efficacy research is the perception of competence (Darling-Hammond, Wise, & Pease, 1983). The problem of identifying antecedents of efficacy and developing ways to enhance teachers' sense of efficacy is critical (Gibson & Dembo, 1984). Substantial research suggests that an individual's sense of efficacy can be influenced by interactions with others as well as organization factors. Motivation and perceptions of self-efficacy are influenced by the expectancy of achieving objectives and by the value of rewards (Vroom, 1964). Self-efficacy requires a responsive environment that allows

for and rewards performance attainment (Bandura, 1982). As Bandura states:

> Situational factors that often accompany poor performance can in themselves instill a sense of incompetence that is unwarranted.... [When] people are cast in subordinate roles or are assigned inferior labels, implying limited competence, they perform activities at which they are skilled less well than when they do not bear the negative labels or the subordinate role designations. (p.42)

In effect, teachers with a high sense of efficacy possess a high degree of professional self-esteem. Studies have shown a positive relationship between a teacher's sense of efficacy and student achievement (Berman et al., 1977, Ashton & Webb, 1986). Teachers with a strong sense of efficacy believe teaching makes a difference in student learning, believe in their professional abilities, and believe that putting a high degree of effort into their work will result in higher student achievement (Blair, 1988).

Blair (1988) states further, teachers with a high sense of efficacy know their subject matter well, like and respect their students, assume personal responsibility for the progress of their students, and believe in their ability to provide differential instruction to meet the varied needs of all their students.

Teacher Performance

A definition of the teaching task and a mechanism to evaluate it must be embodied in a teacher evaluation system. Teacher effects research findings have been converted to rules for teacher behavior and is a cornerstone of many performance-based evaluation models (Darling-Hammond, Wise, & Pease, 1983). The assumption of these models is that the rules are generalizable because student outcomes are determined primarily by particular uniform teaching behaviors.

Since the early 1970s, a growing body of knowledge has emerged concerning teacher behavior and the effects those behaviors have on student outcomes. This realm has been typified by the labels of "teacher effects" or "process-product" research. The primary thrust of this area of inquiry is to identify teaching behaviors and practices that tend to result in, or to be correlated with, student achievement. The common general paradigm in all the studies was measurement of the teacher behavior ("process") and teacher effectiveness ("product," later called "outcome"). Gains in student achievement were measures of teacher effectiveness. Correlation was used in the first studies. Findings from the correlational research were used to

develop instructional packages, and experimental field studies were conducted (Shavelson, Webb, & Burstein, 1986).

In 1971, Rosenshine and Furst cited some 50 studies and proposed 11 teacher-behavior variables. These teaching variables were selected to represent the most conclusive and the "best" research found. The review of Rosenshine and Furst strongly influenced the idea of "performance-based teacher education" (Heath & Nielson, 1974). The variables proposed were: (1) clarity, (2) variety, (3) enthusiasm, (4) task-oriented and/or businesslike behaviors, (5) student opportunity, (6) use of student ideas, (7) justified criticism of students during instruction, (8) use of structuring comments, (9) types of questions, (10) probing, and (11) level of difficulty of instruction.

Since 1971, when Rosenshine and Furst reviewed the literature on teaching and suggested those 11 promising variables that affect the teaching act, researchers have focused on the "effect" of certain teaching acts on student learning. Five behaviors from these studies have strong research support (Rosenshine, 1983; Dunkin & Biddle, 1974; Walberg, 1986; Brophy & Good, 1986). The five concepts--clarity, variety, task orientation, student engagement, and success rate--represent some of the most important behaviors and skills that are central to modern definitions of

effective teaching. It seems quite obvious to say that without the knowledge and skill to present lessons that are clear, that incorporate variety, that are task oriented, and that actually engage students in the learning process at moderate-to-high rates of success, no teacher could be truly effective in producing desirable patterns of student achievement and attitude (Borich, 1988).

Research on teaching has pointed to the teacher's role in improving education. The teachers' thoughts, judgments, and actions related to teaching method have a direct bearing on whether or not students are provided an appropriate education. Teachers must design and employ effective teaching techniques for an entire classroom simultaneously. In addition to purely "instructional" concerns, teachers need to be able to create, manage, and maintain an environment conducive to learning. Teachers equate success with the ability to manage the classroom effectively (Blair, 1988).

Blair (1988) provides a summation of teachers' effective practices. The principles of instruction should be viewed together and presented as parts of a planned whole, not as separate entities. The effective teacher's performance is guided by one of several principles that work together simultaneously in his or her specific situation to

achieve positive results. Providing the right balance of instructional objectives, motivating students, presenting new material correctly to students, providing proper teacher-student interaction and feedback, and maintaining an adequate level of classroom control are some of the major areas demanding teachers' time, expertise, and judgment. These teaching functions must be performed given the physical characteristics and limitations of the classroom environment and the wide range of individual differences found in each group of students.

Volumes have been published citing studies contributing to the body of knowledge about teacher behaviors and the relationship of those behaviors to student achievement; however, no study has yet been done that includes all of these desirable characteristics (Brophy & Good, 1986). An exhaustive summary of teacher effects research is not necessary for this particular study. The importance lies in the fact that the data from the teacher effects research has been used to develop criteria by which teachers can be assessed and that these criteria have led to a performance-based concept of teacher evaluation (Reynolds, 1980).

An instrument to assess teacher behavior was developed by a University of Georgia research team (Johnson, 1979). A summary of the generic competencies for teachers follows.

1. Plans instruction to achieve selected objectives.
2. Organizes instruction to take into account individual differences among learners.
3. Obtains and uses information about the needs and progress of individual learners.
4. Refers learners with special problems to specialists.
5. Obtains and uses information about the effectiveness of instruction to revise it when necessary.
6. Uses instructional techniques, methods, and media related to the objectives.
7. Communicates with learners.
8. Demonstrates a repertoire of teaching methods.
9. Reinforces and encourages learner involvement in instruction.
10. Demonstrates an understanding of the school subject being taught.
11. Organizes time, space, materials and equipment for instruction.
12. Demonstrates enthusiasm for teaching and learning and the subject being taught.
13. Helps learners develop positive self-concepts.
14. Manages classroom interactions.
15. Meets professional responsibilities.
16. Engages in professional self-development.

Similar criteria as cited in the preceding list have been used in the evaluation of teachers. The School Improvement Model (SIM) at Iowa State University uses them for suggestions in training evaluators of teachers (Manatt, 1986).

An investigation concerning teachers certainly would be inconclusive without an identification of students' perceptions of a good teacher. Research has yet to disconfirm the early studies of Jersild (1940) and Witty (1947). Jersild's study with elementary children consisted of the qualities of the teachers they liked best. Concerning the area of performance, the students mentioned enthusiastic, resourceful, explained well, and permitted expression of opinion. Witty's research with high school students arrived at essentially the same results. There were some descriptions in the age trends that are worth noting: high school students more frequently picked characteristics bearing on teaching ability, whereas, younger children singled out interesting projects introduced by the teacher. The teacher who was enthusiastic, sensitive, and understanding was valued at all ages.

More recent research is attuned to student perception of teachers' behaviors and classroom instructional processes. In their research on teacher talk and student

thought, Blumenfeld et al. (1983), reported teachers' comments and directions about academic performance correlated highly with students' thoughts. The teacher who focuses on the academic work and the students' responsibilities for accomplishing it through effort stresses the importance of the intellectual activities. Winne and Marx (1982) examined students' perceptions of classroom instruction and their relation to achievement. They state that students' perceptions of teachers' behaviors mediated between what the teacher overtly intended students to think about and how students covertly carried out cognitive operations and plans. They also found students' perceptions of instruction were related to achievement.

In Hersh's (1982) review of the school effectiveness literature, one of the attributes he discovered concerned the school's instructional and curriculum patterns. A summary of Hersh's (1982) description of attributes associated with the instructional curriculum of effective schools include:

1. <u>High academic learning time</u>: Teachers in effective schools have found ways to maximize the time devoted to academic learning.

2. <u>Frequent and monitored homework</u>: Homework is required and is checked by the teachers in effective schools. Checking and giving feedback to students is one way to tell students they have high expectations and that they care.

3. Frequent monitoring of student progress: Through tests, quizzes, and informal devices, teachers keep track of student progress and give students and parents helpful feedback on this progress.

4. Coherently organized curriculum: The curriculum in effective schools is closely connected to the goals and objectives of the schools and is linked to the major evaluation and testing procedures. Teachers know what teachers at other levels or in other subjects are teaching and match their own instruction accordingly.

5. Variety of teaching strategies: Teachers in effective schools have broad repertoires of teaching strategies and employ these to help meet the school's instructional goals.

6. Opportunities for student responsibility: The adults in effective schools find ways to engage students in running their school.

What people believe about their skills and accomplishments are equally or even more important than their actual level of accomplishment in determining their decision to remain in or leave teaching. Self-rated data of teaching skills serve as proxy for more objective measures of attainment (Chapman, 1983a).

Working Environment

Chapman and Lowther (1982) conceptualized a framework that specifies the important variable sets and their relationships to teachers' satisfaction. This framework suggests that career satisfaction is influenced by: (a) a teacher's personal characteristics; (b) a teacher's skills

and abilities, particularly in organizing time and activities, and communicating effectively; (c) the criteria the teacher uses to judge his or her professional success, particularly with respect to job challenge and rewards; and (d) professional accomplishments to date, with particular respect to job challenge and recognition by others. Abilities, values, and professional achievements influence and, in turn, are shaped by each other.

Chapman and Lowther based their conceptual framework on Holland's (1973) theory of vocational choice and the work of Super and Hall (1978). Holland posits that vocational satisfaction, stability, and achievement depend on the congruence between one's personality and the environment in which one works. Super and Hall contend that people who feel challenged by their work, who have autonomy in carrying out their tasks, and who feel adequately rewarded are more apt to persist in and be satisfied with their career.

This frame of reference is called a "personality-and-organization view" in Argyris' (1972) conceptualization. It is the degree of congruence between an individual's aspirations and the organization's requirements for the work of that individual. When congruence occurs between work requirements and individual aspirations, satisfaction and desirable activities will probably result. Argyris states

further that satisfaction with one's work world can be influenced by the perceived degree to which the working environment is considered alterable. This is in congruence with what behavioral scientists have documented. A person's sense of satisfaction is partially determined by what is available and by the norms of peer reference groups. The effect of satisfaction with teachers individual facets on overall teacher satisfaction with his/her job, and consequently on decisions has been examined by Argyris. Argyris says that desire for autonomy and control over one's work world is a strong and deep-seated motive and this need tends to increase over time. Argyris notes that facets such as the leadership style of supervisors and administrative controls can be sufficiently powerful to cause an employee to leave an organization even though he/she is intrinsically satisfied.

The results of Chapman and Lowther's (1982) study verified the earlier work of Holland (1973) as well as that of Super and Hall (1978). Chapman and Lowther found that career satisfaction depends on the congruence between the abilities, values, and accomplishments that should characterize a teacher and those factors exhibited by individual teachers. The teachers who rated themselves higher in skills and abilities, values and professional

accomplishments exhibited more satisfaction with their career and current employment. They also found that increased opportunities for teachers to exercise leadership and to continue their learning foster greater satisfaction. The recognition actually received from administrators and supervisors had a strong relationship to career satisfaction. Chapman and Lowther's findings indicate that if teachers are challenged by new ideas or do find ways of offering leadership, those accomplishments are positively related to career satisfaction.

The research concerning teacher satisfaction has received considerable attention. The construct of satisfaction and how to measure it reflects some controversy. One of the most common approaches has been to collect teachers' self-ratings of their satisfaction on Likert-type scales in response to items that ask about a person's overall experience (Chapman, 1983b). Holdaway (1978) refers to this particular measurement as global or overall satisfaction. According to Holdaway, global satisfaction is an individual's affective reactions to his/her total work role. Chapman's criticism of global satisfaction measures is the assumption that satisfaction is a general state of affairs. The concern is whether

satisfaction is understood to be a trait condition or a more transitory state existing for shorter periods of time.

Another approach to measuring satisfaction is to identify factors which contribute to job satisfaction then ask participants to respond to the factors. Holdaway calls this facet satisfaction and defines it as an individual's affective reactions to particular aspects of his or her job. Lawler (1973) specified the contribution of facets to overall satisfaction. He stated that overall job satisfaction is determined by the difference between all the things a person feels he/she should receive from the job and all those things actually received.

Holdaway's (1978) study of 801 Alberta teachers was an investigation of the levels and relationships between overall job satisfaction and facet satisfaction. His results were that intrinsic facets were most closely related with overall satisfaction. Overall satisfaction was most highly related to satisfaction with achievement, career-orientation, recognition, and stimulation. Affiliation between overall satisfaction and societal attitudes, status, recognition, achievement, career-orientation, and stimulus was revealed. "Working with students" was the common response as the major source of overall satisfaction. The highest percentages of being satisfied were obtained with

interpersonal relationships, freedom in making instructional decision, and the teaching assignment. Dissatisfaction occurred with the facets of attitudes of society and parents; status of teachers; decision-making, consultative, and bargaining procedures; preparation time, and staffing procedures.

Chapman (1983b) used facet variables to define overall satisfaction. In his study of 422 high school and elementary teachers, he investigated the extent to which teachers' career satisfaction (overall) was related to selected skills, values, and professional accomplishments. The results indicated career satisfaction of high school teachers was related significantly to their self-rated skills and abilities. Career satisfaction of elementary teachers was related significantly to the importance they assigned to selected criteria of professional success. Both groups demonstrated significant results relating to professional achievements. This study provided a reminder of the importance of administrator-teacher rapport within the school and the importance of visible community support outside the school. The correlation of administrator recognition and approval to satisfaction was very strong.

Chapman's (1983b) results are consistent with Chapman and Hutcheson's (1982) investigation of teacher attrition.

Those who did and did not leave teaching differed significantly in their self-related skills and abilities and the importance they assigned to selected criteria of judging professional success. Both high school and elementary teachers who left teaching indicated salary and job autonomy as the most important determinants. The elementary teachers who left noted the chance to contribute to important decisions was also important. Those remaining in teaching were more oriented toward the recognition and approval by other people.

Natriello and Dornbusch (1980-81) evaluated teachers' satisfaction with evaluations systems. They found that teacher satisfaction is strongly related to (a) perceptions that all evaluators share the same criteria for evaluation; (b) more frequent samplings of teacher performance; (c) more frequent communication and feedback; and (d) teachers' ability to affect the criteria for evaluation.

Sweeney (1981) adheres to the idea that teachers derive more satisfaction in their positions from performing more effectively. Thus, they reap intrinsic and extrinsic benefits. Sweeney also adds the relationship between satisfaction and performance can, in fact, be reciprocal. Satisfaction may foster improved performance.

Dissatisfaction with the conditions of work may be manifested most dramatically in a decision to defect from teaching. However, in cases where defection is not an alternative, the result is to exert little productive efforts and to settle for less than the best quality in performance. A growing body of evidence reveals that the extent of workplace dissatisfaction can be used successfully to account for attrition and involvement with successful teaching (Rosenholtz, 1989).

Teaching level has been studied concerning teacher satisfaction. Elementary school teachers were more satisfied than senior high school teachers in terms of the following categories: colleagues, working conditions, pay, responsibility, and work itself (Lester, 1984). Erlandson and Pastor (1981) found that high school teachers need satisfaction in the participation of decision making, the use of a variety of valued skills and abilities, freedom and independence, challenge, expression of creativity, and an opportunity for learning. The National Education Association (1980) found that elementary school teachers are most satisfied, and that senior high school teachers are the most dissatisfied with job factors.

Job Provisions

From a sociological viewpoint, the educational process cannot be understood unless the social environment within which learning occurs is understood (Brookover, 1977). A sociological perspective presents the school as a cultural system of social relationship among family, teachers, students, and peers. Sociological theory emphasizes the taxonomic categories of social system and culture. Tagiuri (1968) developed a taxonomy concerning the dimensions of environment. Tagiuri's taxonomy reflects the concept that school climate includes the total environmental quality within a given school building. He defined climate and atmosphere as summary concepts dealing with the total environmental quality within an organization. The dimensions of an environment include ecology (physical and material aspects), its milieu (the social dimension concerned with the presence of persons and groups), its social system (the social dimension concerned with the patterned relationships of persons and groups, and its culture (the social dimension concerned with belief systems, values, cognitive structures, and meaning).

A school culture perspective rejects the view that schools are relatively static constructs of discrete variables. The literature indicates that the achievement

success of students is interrelated and interconnected with characteristics unique to schools. Thus, the question is "What is the desired climate?" Imagining schools as cultures suggests a framework for an understanding of the problem and an indication of movement toward a solution (Purkey & Smith, 1983).

Although specific tactics may vary in implementation of creating a desirable cultural model, the general strategy is best characterized as one that promotes collaborative planning, collegial work, and a school atmosphere conducive to experimentation and evaluation. This approach sees teachers as part of an entire school organization engaged in development activities. This ongoing activity involves the people affected in the decision-making and implementation process (Purkey & Smith, 1983).

A review by Fuller et al. (1982) of the research on individual efficacy in the context of organization suggests that increased performance and organizational efficacy for teachers will result from:

1. Convergence between teachers and administrators in accepting the goals and means for task performance;

2. Higher levels of personalized interaction and resource exchange between teachers and administrators;

3. Lower prescriptiveness of work task;

4. Teachers' perceptions that evaluation is soundly based and that evaluation is linked to rewards or sanctions; and

5. Teacher input into evaluation criteria, along with diversity of evaluation criteria.

These findings converge markedly with those of Natriello and Dornbusch (1980-81) on determinants of teachers' satisfaction with evaluation systems. They found that teacher satisfaction is strongly related to: (a) perceptions that all evaluators share the same criteria for evaluation; (b) more frequent samplings of teacher performance; (c) more frequent communication and feedback; and (d) teachers' ability to affect the criteria for evaluation. Furthermore, frequency of negative feedback did not cause dissatisfaction, but infrequency of evaluation did. Teacher satisfaction with evaluation, then, seems to be based on perceptions that evaluation is soundly based; that is, that the teacher has some control over both task performance and its assessment. These perceptions influence the teacher's sense of performance efficacy (Fuller et al., 1982).

The milieu and the social system of the school environment was investigated through the early work of Ryans (1964). His studies produced findings that sorted out the differences between how "good" and "poor" teachers view others. The "good" teachers rated significantly in at least

five different ways with respect to how they viewed others. The good teachers had: (a) more favorable opinions of students; (b) more favorable opinions of democratic classroom behavior; (c) more favorable opinions of administrators and colleagues; (d) a greater expressed liking for personal contacts with other people; and (e) more favorable estimates of other people generally.

In his book, The Professional Education of Teachers, Combs (1965) cites several studies which reached similar conclusions about the way good teachers typically see themselves.

1. The good teacher is more likely to have an internal frame of reference.
2. The good teacher is more concerned with people rather than things.
3. The good teacher seeks to understand the causes of people's behavior.
4. The good teacher trusts other people.
5. The good teacher sees others as being friendly rather than hostile or threatening.
6. The good teacher sees people and their behavior as developing from within.

According to Rogers' (1975) organizational theory, an individual's behavior results from two types of factors. The external factors are those forces that operate from outside the person, and include such things as the social setting and the behavior of other people. In an

organizational setting, the external factors would include such things as specific job requirements, the person's position in the organizational hierarchy, and the behavior of superiors, subordinates, and co-workers. The internal factors are those forces that operate within the person, and include the person's perception or interpretation of the situation, attitudes or likes and dislikes, plus his or her own needs or motivations. Internal factors would include the person's interest in the job, job satisfaction, and feeling toward superiors, subordinates, and co-workers. The internal and external factors interact and affect one another.

The organizational system of schools is formal. Like other formal organizations, they have needs over and above those given to them by people. Society gives schools additional goals, and these tend to legitimize schools as official societal institutions. Schools achieve their purposes through people who are differentiated by task, role, and function. Power and authority put people and schools into motion. Based on how the school is organized, how power is distributed and used, and what goals enjoy a privileged position, certain organizational personalities emerge. Dimensions of organization, power distribution and use, and the character of interaction between the human

being and the organization have critical effects on the nature and quality of organizational effort, educational decision- making, and administrative effectiveness (Sergiovanni & Carver, 1980).

In some ways schools are similar to other organizations in society. Members in the school organization are directed toward the accomplishment of specific goals. Another organizational feature of schools is their division of labor and the resulting coordination of efforts that are needed. The people in schools are much like people of other organizations. They not only have a job to perform, they also have psychological needs and motives to satisfy. This perspective can be understood by viewing the three domains that people are motivated to invest energy in: achievement, affiliation, and influence. Achievement manifests itself in teachers and other adults in schools as they strive to provide good instruction and act as competent professionals. Affiliative motives become important when teachers come to value their peers for support, friendship, and collegiality (Arends, 1988).

Anderson and Iwanicki (1984) examined motivational factors and their relationship to teacher burnout. Their definition of teacher motivation used the need deficiency conceptualization adapted by Porter (1961) from Maslow's

heirarchy of needs and applied to schools by Sergiovanni and Carver (1973). Porter deleted physiological needs and added autonomy. The rationale for this modification was the need for autonomy or the desire for control over one's environment seemed particularly important in professional organizations. Through their work with teachers, Sergiovanni and Carver have defined Porter's five need areas as follows:

1. Security is the teacher-perceived need for money, benefits, and tenure associated with one's job.

2. Social is the teacher-perceived need for acceptance, belonging, friendship, and membership in formal and informal work groups.

3. Esteem is the teacher-perceived need for self-respect and respect by others as a person and as a professional.

4. Autonomy is the teacher-perceived need for authority, control, and influence.

5. Self-actualization is the teacher-perceived need for personal and professional success, achievement, peak satisfaction, and working at full potential.

Just as schools have features in common with other organizations, so too, they have features that are special. Arends (1988) discussed the norms, roles, and organizational arrangements that exist in schools for the purpose of getting work accomplished. Norms are the expectations that people have for one another in particular social settings.

In schools many formal and informal norms exist that affect organizational members. In some schools there is a norm supporting friendliness and openness. In some schools norms to encourage experimentations may exist. This will encourage teachers in trying new ideas.

Arends (1988) stated that the autonomy norm has a great deal of influence on teachers. This is the norm that teachers do much of what they want once they are in their classrooms and their doors are closed.

Closely paralleling the autonomy norm is a norm labled by Lortie (1975), Sarason (1982), and Joyce et al. (1983) as the "hands-off" norm. Not only are teachers given autonomy in their classrooms, but strong sanctions exist against interfering with other teachers in any but the most superficial ways. Lortie (1975) says, according to this norm, it is not appropriate for teachers to ask for help. Such a request would suggest that the teacher is failing. According Feiman-Nemser and Floden (1986), this "hands-off" norm also indicates that it is not permissible for a teacher to tell a peer what to do or to suggest that he or she teach something differently.

Lortie (1975) described the school's organizational structure as "cellular," that is, each classroom can be regarded as a cell within which the teacher is responsible

for organizing the students, managing discipline, and teaching academic content. This organizational scheme, coupled with the "hands-off" norm, creates an isolated work situation for teachers. Joyce et al. (1983) have observed that this situation has made it customary for principals to relate to the teachers on a diadic basis, that is, in a one-to-one relationship rather than as an organized faculty prepared to take collective responsibility.

The school's cellular structure also causes an organizational arrangement labeled "loosely coupled" (Weick, 1983). This means that what goes on in classrooms is not connected very tightly to what goes on in other parts of the school. Teachers can and do carry out their own instructional activities independently of administrators and others. The central office may initiate new curricula or new teaching procedures, but if teachers choose to ignore these initiative, they can. Loose coupling allows considerable room for individual teacher decision making. Loose coupling can stymie efforts to establish common goals and coordinated activities.

Richard Hersh (1982) reviewed the school effectiveness literature and provided a list of the features that characterize effective schools. Hersch says that attributes of effective school and be divided into two categories. One

of the categories has to do with the school's social organization. The following summarizes Hersh's definitions of the social organizational attributes:

1. Clear academic and social behavior goals: Academic achievement is constantly emphasized and teacher, parents, and students share common values and understandings about the school's achievement goals.

2. Order and discipline: Basic rules of conduct have been agreed upon throughout the school, and teachers feel responsibility for enforcing behavioral norms both in their own particular classes and across the school.

3. High expectations: Teachers and other staff hold high standards for students.

4. Teacher efficacy: Teachers also have high expectations for themselves and a strong belief that they can teach every child.

5. Pervasive caring: Teachers and other adults in the school develop a caring atmosphere.

6. Public rewards and incentives: Effective schools have devised ways to publicly reward student success and achievements.

7. Administrative leadership: Principals in effective schools care deeply about the school's academic programs. They support teacher and student efforts and they help set the tone for high expectations and pervasive caring.

8. Community support: Staff in effective schools find ways to involve parents and community in the school's programs.

In a study concerning effective schooling, Mackenzie (1983) advocates a cultural approach of analysis. He lists 31 particular elements clustered along the dimensions of

leadership, efficacy, and efficiency. The core elements Mackenzie lists under each cluster are invoked in the school effectiveness literature. Mackenzie's dimensions of effective schooling are summarized below:

Leadership Dimensions

--Postive climate and overall atmosphere
--Goal-focused activities toward clear, attainable and relevant objectives
--Teacher-directed classroom management and decisionmaking
--In-service staff training for effective teaching

Efficacy Dimensions

--High and positive achievement expectations with a constant press for excellence
--Visible rewards for academic excellence and growth
--Cooperative activity and group interaction in the classroom
--Total staff involvement with school improvement
--Autonomy and flexibility to implement adaptive practices
--Appropriate levels of difficulty for learning tasks
--Teacher empathy, rapport, and personal interaction with students

Efficiency Dimensions

--Effective use of instruction time; amount of intensity of engagement in school learning
--Orderly and disciplined school and classroom environments
--Continuous diagnosis, evaluation, and feedback
--Well-structured classroom activities
--Instruction guided by content coverage
--Schoolwide emphasis on basic and higher order skills.

Leadership is a necessary condition for efficacy and efficiency. School leadership is a set of attitudes,

activities, and behaviors which inspire other to effective group efforts. The teaching staff has the autonomy and flexibility they need to discover and implement adaptive practices to attain clearly defined goals (Mackenzie, 1983).

In a review of effective school research, Steller (1988) lists and expounds upon five key factors. These factors are:

1. Strong instructional leadership by the principal
2. Clear instructional focus
3. High expectations and standards
4. Safe and orderly climate
5. Frequent monitoring of student achievement.

For significant positive results all factors must coexist. To achieve maximum benefits school improvement must advance on multiple fronts.

Ecological research attempts to understand both human behavior and the physical and social contexts in which it occurs and to trace the reciprocal influences of persons and environments. This type of research treats teaching and learning as continuously interactive processes. The ideal study considers person-environment interactions not only within the immediate setting, but also the influences of other contexts on those interactions. Ecological studies treat the attitudes and perceptions of the actors as important data about schools and classrooms (Hamilton, 1983).

A reduction of the educational bureaucracy is called for by proposed reforms of teaching. Enablement as much as empowerment is a requirement for teachers to be critical components in decision making. Teachers deserve conditions that enable them to develop their talents and capacities and to exercise them in the interests of children (Shulman, 1988).

Shulman (1988) states further that greater competence can enable a teacher with the understanding, the skill, and the commitment to act wisely and sensitively. Those who are viewed and trusted as able will flow more easily with power. Institutions where autonomy, flexibility, and discretion have been granted will develop enablement more readily.

Position Selection

There are a wide variety of indicators of professional integration into teaching. Four apparently have particular salience: (a) salary, (b) the extent to which people assign importance to selected criteria of professional success, (c) the extent to which people believe they have achieved ends that are widely valued, and (d) the extent to which people feel they possess selected skills and abilities (Chapman, 1983a).

In 1983, Keith, Warren, and Dilts found that women in elementary education expressed a greater preference for jobs

which provided an opportunity for self-expression, an opportunity to help others, and for jobs with diversity in the work place. Women in secondary education placed a greater emphasis on autonomy and leadership. The researchers also found that diversity in work was most valued by those who planned to teach or be in educational fields, while opportunities for advancement were most important to those planning nonacademic careers.

Elementary teachers differ from secondary teachers concerning the areas of influence of job selection. Elementary teachers were influenced by: (1) their desire to work with children or adolescents; (2) their desire to be of service to society; (3) experience of working with youngsters; (4) the opportunity to leave the profession and return to it later; and (5) membership in Future Teacher clubs. Whereas, secondary teachers were influenced by: (1) their liking for a particular subject; (2) the comparatively short day, long summer vacation and other vacations; (3) the trend toward increasing salaries of teachers; (4) results of vocational interest inventories; and (5) the opportunity to use teaching as a stepping stone to another career (Fox, 1961).

Significantly related to job retention is the importance teachers assign to salary (Chapman & Hutcheson,

1982). Heffley (1983) found this a factor for both men and women. Lortie (1975) stated that those who enter know approximately how much they will earn. They also know that starting salaries are lower than other professions and there will be limited salary increases.

Chen (1982) found that greater importance was assigned to a job that provided the opportunity to help and work with people and for creativity and originality and less importance on extrinsic rewards by students intending to teach. She also found size was a factor to remaining in teaching. Teachers employed in rural areas or small towns are more likely to remain in teaching. Demographic characteristics of schools significantly affect teachers' attitudes. In schools with a large minority student population, teachers tended to be more authoritarian than teachers in schools with a majority of white students (Larkin, 1973; Leacock, 1969).

School norms have a prevailing influence on teacher attitude. If teachers become convinced that significant academic achievement is an impossible aim with the students they teach their primary goal may become maintaining order as a self-protective stance (Hargreaves, 1972; Leacock, 1969; McPherson, 1972).

The personnel in a school has an effect on teacher attitude and effectiveness. School structures that enhance teachers' opportunities for collegial interaction have a positive effect on teachers and student achievement. Norms of collegiality are evident in successful schools. This includes the relationship with the principal. The evidence is inconclusive, but the major behavior of the principal related to teacher attitude and effectiveness is the principal's recognition and support of teachers (Cohen, 1981; Ellett & Master, 1977; Ellett & Walberg, 1979; Leithwood & Montgomery, 1982; Little, 1982).

CHAPTER III. METHODS

The purpose of this chapter is to describe the data source, the instrument used to collect the data, and the population used in the study. It will also operationally define the variables and describe the statistics used.

The basis of the study was to test a hypothetical model. The model was tested by recursive path analysis. This method described by Asher (1983) is a technique concerned with estimating the magnitude of the linkages between variables and using these estimates to provide information about the underlying causal processes. Path analytic models provide a method of theory testing using least squares regression techniques. This procedure is a way of evaluating relationships among variables when theory provides insight into the ordering of the variables into a model (Kenny, 1979).

To use path analysis certain assumptions must be made (Pedhazur, 1982). The first assumption is that relations among variables are linear and additive. Second, residuals are not correlated with preceding variables. Third, the causal flow is unidirectional (recursive). Fourth, it is assumed that variables are measured on an interval scale.

The last assumption is that variables are measured without error.

In using causal modeling, it is important to note that more than one theoretical model may fit the data equally well (Bentler, 1980). The theoretical model is proposed a priori based on theoretical and substantive reasoning. A good fitting model predicts a substantial portion of the variance among the variables and that it is a plausible way of representing the relationships among the variables.

Based on the preceding review of literature some key insights were found pertaining to the dynamics of the variables used in the model. After the variables were identified, it was extremely important that the variables be placed correctly for possible causal relationships. Teachers' role perception depends on the workplace conditions and organizational structures of the school that foster or inhibit it (Jarolimek & Foster, 1989; Fuller et al., 1982). This insight and the supportive literature provided evidence of the placement of the job selection, job provisions, and satisfaction with the working environment variables.

The placement of the variables pertaining to teaching performance and the sense of teaching efficacy were not as evident. There was inconclusiveness in the literature

concerning efficacy and especially in the definitions and measurement of efficacy. Bandura (1977) indicated that mastering experiences enhance the individual's efficacy relative to the tasks involved. Thus, inference could be drawn that the individual's perception of the ability to deal successfully with the tasks are related to sense of efficacy. Fuller et al. (1982) defined efficacy as "the individual's perceived expectancy of obtaining valued outcomes through personal effort" (p.7). Fuller and co-authors admitted that this was a very general broad definition but was helpful in integrating the related literature of Vroom (1964). These reviews stated that the performance of teachers is a function of their commitment to their profession and of their sense of efficacy. Fuller and co-authors also emphasized the need to distinguish between organizational efficacy and performance efficacy. Organizational efficacy refers to the individual's expectancy that valued outcomes can be gained by influencing another person at a different level of the organization, and performance efficacy refers to the teacher's perceived competence in accomplishing work tasks within the classroom, independent of other members of the school organization. Fuller and co-authors pointed out that organizational changes that benefit an individual's organizational efficacy

may limit individual efficacy. Organizational variables may influence organizational and performance efficacy in similar ways. These variables also may influence each of the two efficacy dimensions differently.

The preceding study also noted the possibility of reciprocity of efficacy. The organizational definition of efficacy by Fuller et al. was consistent with the efficacy dimension of effective schools in Mackenzie's (1983) review. That led to the study of Ashton and Webb (1986) and the explicitness of their study concerning efficacy. Their study was consistent with the theoretical background of the Fuller et al. (1982) review. However, Ashton and Webb were more specific concerning their definition of efficacy and its measurement. The present study was more congruent with Ashton and Webb in those two areas. The measurement behaviors used were consistent with those cited by effective school research as making differences in student achievement. This led the researcher to infer that if the teachers rated themselves highly on the mastery of performance variables, this would lead to a high sense of teaching efficacy. This would be supportive of Bandura's conception that self-efficacy develops as an individual acquires conviction of personal competence. Generally, the literature indicates that efficacy is related to

performance, and that certain backgound and current situational factors may affect efficacy (Trentham et al., 1985).

A self-report data collection instrument was used in this study. The use of self-report data was influential on the variable placement in the model. Chapman (1983a) justified using self-rated data concerning teaching skills as a more objective measure of personal attainment of those skills. The purpose of the present study clearly states the need for the investigation into the factors influencing teacher commitment. These insights led to the development of this theoretical model and to the particular placement of the variables in the model.

Standardized path coefficients were used for this study. The use of standardized coefficients is preferred when variables are measured in different units or when the objective is to compare relative effects across variables. Standardized coefficients are population-specific since standardization is based on data obtained from a certain sample or population (Kim & Mueller, 1976).

Factor analysis and expert opinion were used to operationally define the variables. Factor analysis is a statistical technique of representing a set of variables in terms of a smaller number of hypothetical variables. Factor

analysis groups variables that are moderately or highly correlated with one another (Boatwright, 1988).

Discriminant analysis was used to give a perspective on the commitment variable. In the model, overall satisfaction was used to measure commitment orientation. It was necessary to do further analysis to examine the concept of commitment.

Discriminant analysis is used whenever the criterion variable is in the categorical form reflecting discrete groups. The same predictor variables plus the commitment orientation variable were used in the discriminant analysis. All the data were analyzed using the SPSSX computer program.

Data Source and Collection

The data used in this study were collected from a comprehensive ongoing research project conducted by the Research Institute for Studies in Education (RISE) for the purpose of evaluating the teacher preparation program at Iowa State University. Survey research was used to collect data from students and graduates of the teacher education program at various stages in their careers. This study used data gathered from surveys of those who graduated from the ISU preparation program five years previously.

In conducting the survey, RISE closely follows the procedures for conducting a mail survey recommended by

Dillman (1978). At the data collection point, those to be surveyed are mailed a copy of the survey with a cover letter explaining the purpose of the survey and enlisting their voluntary participation (Appendix A). Two weeks later, a reminder postcard is mailed to those who have not responded to the earlier mailing. After two more weeks, another copy of the survey and a second letter requesting voluntary participation are mailed to those who have not responded to the first two mailings (Appendix A). All surveys in the project have received approval from the Iowa State University Committee on the Use of Human Subjects in Research.

Instrument

The teacher education graduates included in this study completed the five-year follow-up survey (Appendix A). The instrument was developed by RISE personnel for use in the ongoing RISE research project to evaluate the ISU teacher preparation program.

The "Five-Year Follow-up Teacher Education Graduate Survey" was administered five years following graduation. The items from this survey that provided data relevant to this study are those that ask the subjects to: (a) report plans for five years from now; (b) rate the general satisfaction of current job; (c) rate the importance of

factors in decision to accept recent position; (d) rate the extent the most recent job provides certain characteristics; (e) rate the perceptions about employment factors related to teaching; and (f) rate the perceptions of teaching behaviors.

Population

The population for this study consisted of all the 1982-83 and 1983-84 graduates of the ISU teacher preparation program who were teaching at the time of the survey. The majority of the population was teaching full time (85.4%). Part time teaching was indicated by 10%. Only 2% were substitute teachers. The teaching levels were: pre/kindergarten (12.2%), elementary (39.2%), secondary (37.6%), K-12 (3.7%), pre/K-elementary (2.9%), and post secondary (1.2%).

Measures

Position selection

The importance teachers placed on job selection is measured by five factors relating to the decision to accept the teaching position. In this section, teachers were asked to indicate how important each factor was in the decision to accept the position (see Appendix A, page 132, question 3). Response categories for these five items were "very important," "important," "neutral," "unimportant," and "very

unimportant." Responses were scored 5, 4, 3, 2, and 1, respectively. The response categories were: desirable location, salary offered, size of organization, reputation of school, and liked people with whom I interviewed. The five responses were used as a composite score. The reliability coefficient alpha is reported on Table 20 in Appendix B.

Presented in Table 1 are the five factors, the mean and standard deviation for each of the characteristics, and the number of missing cases for each.

Table 1. Means and standard deviation of importance of position selection (N=245)

	Mean	S.D.	Missing Cases
Desirable location	4.10	1.00	4
Salary	3.34	1.07	5
Size of organization	3.26	1.09	4
Reputation of school	3.57	1.08	5
Liked interviewer	3.67	1.07	7

Job Provisions

The provisions offered in the job are measured by four job characteristics that were derived from responses to 18 items included in a section of the questionnaire (see Appendix A, page 133, question 4). In this section, teachers were asked to indicate the extent to which their current jobs provided them with each of the 18 job characteristics. The response categories and the score assigned to each were "all of the time" (5), "most of the time" (4), "some of the time" (3), "seldom" (2), and "never" (1). The number of characteristics was reduced from 18 to 4 as a result of factor analysis procedures previously conducted by RISE (Warren & Kemis, 1989). The results of this factor analysis appear in Table 21 in Appendix B. This table includes a list of the four job characteristics, the questionnaire items that comprise each, and, for each multi-item characteristic, the reliability coefficient alpha.

The four characteristics identified through factor analysis are leadership, economics, empowerment, and humanistic qualities. Presented in Table 2 are the four job characteristics, the number of items that comprise each, the mean and standard deviation for each of the characteristics,

Table 2. Means and standard deviation of importance of job provisions (N=245)

	Mean	S.D	Missing Cases
Leadership			
Challenge	4.31	.87	1
Responsibility	4.57	.67	1
Variety in the work	3.94	.88	2
Opportunity to exercise leadership	3.85	1.00	2
Adventure	3.19	1.19	1
Control over what others do	3.22	1.00	2
Economic			
Opportunity to earn a good deal of money	2.23	1.02	1
Opportunity for advancement	2.42	1.05	2
Social status and prestige	2.87	.92	3
Opportunity for a relatively stable and secure future	3.57	1.08	1
Fringe benefits	3.64	1.17	1
Empowerment			
Opportunity to be creative and original	4.25	.80	1
Opportunity to use special abilities or aptitudes	4.24	.79	1
Control over what I do	4.27	.84	1
Relative freedom from supervision by others	3.60	.93	1
Humanistic Qualities			
Opportunity to help and serve others	4.50	.66	1
Opportunity to effect social change	3.20	.93	3
Opportunity to work with people rather than things	4.62	.62	3

and the number of missing cases for each of the job characteristic items.

Working environment satisfaction

Satisfaction with the working environment is measured by facet indicators that were derived from responses to 19 items included in a section of the questionnaire (see Appendix A, page 139, question 13). In this section, teachers were asked to indicate how satisfied they were with each of the 19 specified employment factors. Response categories for these 19 items were "very satisfied," "satisfied," "neutral," "dissatisfied," and "very dissatisfied." Responses were scored 5, 4, 3, 2, and 1. The number of characteristics was reduced from 19 to 3 as a result of factor analysis procedures previously conducted by RISE. The results of this factor analysis appear in Table 22 of Appendix B.

The three factors identified through factor analysis are extrinsic, intrinsic, and evaluation. Presented in Table 3 are the three factors, the number of items that comprise each, the mean and standard deviation for each factor, and the number of missing cases for each.

Table 3. Means and standard deviation of importance of working environment satisfaction (N=245)

	Mean	S.D	Missing Cases
Extrinsic			
Salary	2.70	1.15	9
General working conditions	3.75	.96	7
Job benefits	3.75	1.23	12
Amount of administrative support received	3.54	1.24	8
Extent of involvement in decision making	3.65	1.05	8
Opportunities for advancement	2.88	1.05	25
Job responsibilties	3.89	.86	8
Extent to which job challenged and provided for professional growth	3.99	.99	7
Intrinsic			
Level of parental involvement	3.32	1.11	17
Community support for education	3.16	1.18	8
Relationship with students	4.52	.74	7
Size of community in which employed	3.87	1.07	8
Evaluation			
Method of job evaluation	3.33	1.08	19
Frequency of job evaluation	3.35	1.06	17

Teaching Performance

Teaching performance is measured by the teachers' perception of teaching behaviors that were derived from responses to six items included in a section of the questionnaire (see Appendix A, page 138, question 12). These six items are a result of a previous factor analysis conducted by RISE. The reliability coefficient alpha is reported in Table 23 in Appendix B. The teachers were asked to rate their perception of each teaching behavior on a scale of 0 (very low) to 10 (very high).

The six behaviors are demonstrating knowledge of subject matter, monitoring and evaluating student progress and understanding, providing clear, concise explanations and examples, demonstrating effective planning and organization skills, using evaluation activities appropriately, and implementing the lesson plans effectively.

Presented in Table 4 are the six behaviors, the number of items that comprise each, the mean and standard deviation for each factor, and the number of missing cases for each.

Table 4. Means and standard deviation of importance of teaching performance (N=245)

	Mean	S.D	Missing Cases
Demonstrating knowledge of teaching matter	8.54	1.10	9
Monitoring and evaluating student progress and understanding	7.98	1.29	9
Providing clear, concise explanations and examples	8.15	1.33	10
Demonstrating effective planning and organizational skills	8.48	1.34	11
Using evaluation activities appropriately	7.86	1.42	11
Implementing the lesson plans effectively	7.01	1.46	9

Sense of teaching efficacy

Teaching efficacy is measured by the teachers' perception of seven teaching behaviors that were derived from responses to items included in a section of the questionnaire (see Appendix A, page 138, question 12). These seven behaviors were a result of factor analysis conducted previously by RISE. The reliability coefficient alpha is reported in Table 24 in Appendix B. The teachers were asked to rate their perception of each teaching behavior on a scale of 0 (very low) to 10 (very high).

The seven behaviors are providing a setting conducive to learning, motivating students, communicating effectively with students, exhibiting a positive self-concept, maintaining high expectations for student achievement, incorporating effective questioning techniques, and maintaining high standards for student behavior. Presented in Table 5 are the seven behaviors, the number of items that comprise each, the mean and standard deviation for each factor, and the number of missing cases for each.

Commitment Orientation

Commitment orientation has been operationally defined as the general satisfaction teachers perceive concerning their career of teaching. This is measured by responses teachers gave to two items included in two sections of the questionnaire (see Appendix A, pages 132 and 139, questions 13t and 2). In the first item teachers were asked to rate their satisfaction with teaching as a career. Response categories for that item were "very satisfied," "satisfied," "neutral," "dissatisfied," and "very dissatisfied." Responses were scored 5, 4, 3, 2, and 1. The other item asked teachers to rate, on a scale of 0 (very low) to 10 (very high), their general satisfaction with their current job. Presented in Table 6 are the two factors, the mean and standard deviation for each factor, and the number of

missing cases for each. The scores were then standardized to obtain a general satisfaction score.

Table 5. Means and standard deviation of importance of teaching efficacy (N=245)

	Mean	S.D	Missing Cases
Providing setting conducive to learning	8.20	1.24	9
Motivating students	7.99	1.50	9
Communicating effectively with students	8.74	1.21	9
Exhibiting a positive self-concept	8.70	1.30	9
Maintaining high expectations for student achievement	8.65	1.37	10
Incorporating effective questioning techniques	7.88	1.54	12
Maintaining high standards for student behaviors	8.67	1.29	11

Commitment

Commitment is measured from the concept "Five years from now, do you plan to be...." The response categories were teaching, employed in education other than teaching, employed outside the field of education, other, and undecided (see Appendix A, page 131, Part C, Section b).

The categories were coded 1 = Teaching; 2 = Education not Teaching; 3 = Outside Education; and 4 = Other.

Table 6. Means and standard deviation of importance of commitment orientation (N=245)

	Mean	S.D	Missing Cases
Satisfaction with teaching as a career	3.86	.98	7
Satisfaction with current job	7.44	1.82	7

CHAPTER IV. RESULTS

Presented in Chapter IV are the results of the testing of the hypothetical model. The analyses (descriptive statistics, path analysis, and discriminant analysis) used in testing this model were used to discover the relationships among the variables and to examine possible causal effects.

Descriptive Data

This study used quantitative data on 245 teachers who were graduates of Iowa State University. At the first stage of data analysis, descriptive statistics were computed representing characteristics of the variables identified for this study. Table 7 presents means and standard deviations of the identified variables. Table 8 presents the group means and standard deviations used for the discriminant analysis procedures.

Response distributions (frequencies and percentages) of questionnaire items are presented in Tables 25-30 in Appendix B.

Table 7. Means and standard deviation of identified variables (N=218)

	Variables	
	Mean	S.D.
Position Selection[a]	3.58	.69
Job Provisions[a]		
Leadership	3.85	.64
Economics	2.95	.68
Empowerment	4.09	.66
Humanistic Qualities	4.11	.55
Working Environment Satisfaction[a]		
Extrinsic	3.50	.70
Intrinsic	3.72	.71
Evaluation	3.33	1.00
Teaching Performance[b]	8.17	.91
Teaching Efficacy[b]	8.40	.95
Commitment Orientation[c]	.01	.89

[a] Position selection, job provisions, and working environment satisfaction is based on a continuum 1-5.

[b] Teaching performance and teaching efficacy is based on a continuum 1-10.

[c] Commitment orientation is based on standardized scores.

Table 8. Group means and standard deviation of predictor variables for discriminant analysis of commitment

	Criterion Variables							
	Teaching n=142		Education Not Teaching n=22		Outside Education n=27		Other n=33	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Position Selection[a]	3.60	.70	3.50	.55	3.28	.80	3.74	1.67
Job Provisions[a]								
Leadership	3.92	.55	3.97	.59	3.41	.71	3.74	.84
Economics	3.06	.63	2.96	.80	2.62	.56	2.90	.73
Empowerment	4.15	.52	4.20	.59	3.79	.96	4.04	.82
Humanistic Qualities	4.15	.53	4.33	.42	3.73	.58	4.04	.64
Working Environment Satisfaction[a]								
Extrinsic	3.59	.67	3.49	.65	3.00	.81	3.48	.63
Intrinsic	3.79	.72	6.50	.64	3.39	.72	3.85	.63
Evaluation	3.44	.97	3.34	.99	2.70	1.03	3.38	.96
Teaching[b] Performance	8.27	.89	7.84	1.01	7.93	1.03	8.22	.80
Teaching Efficacy[b]	8.54	.82	8.11	.95	7.79	1.47	8.57	.75
Commitment Orientation[c]	.22	.74	-0.14	.74	-1.02	.90	-0.04	.88

[a] Position selection, job provisions, and working environment satisfaction is based on a continuum 1-5.

[b] Teaching performance and teaching efficacy is based on a continuum 1-10.

[c] Commitment orientation is based on standardized scores.

Correlational Data

Table 9 presents correlational data of all variables of the model. In order to examine the relationships of the variables a close examination of the results is necessary.

Relationships of position selection and job provisions with working environment satisfaction

Table 10 presents the correlations of position selection and the variables included in job provisions with the facet variables identified in working environment satisfaction (for means and standard deviations of these variables, see Tables 1-3). The importance of position selection is positively related to extrinsic, intrinsic, and evaluation satisfaction. The provisions of leadership, economic, empowerment, and humanistic qualities are positively related to extrinsic, intrinsic, and evaluation satisfaction. However, the relationship of the humanistic qualities with evaluation is not as strong as is the other two facets.

Relationships of position selection, job provisions, and working environment satisfaction with teaching performance

Table 11 presents the correlations of position selection, the variables included in job provision, and the facet variables identified in working environment

Table 9. Correlational coefficients of the model variables

	1	2	3	4
1. Position Selection	1.00			
Job Provisions				
2. Leadership	.29***	1.00		
3. Economics	.26***	.51***	1.00	
4. Empowerment	.23***	.59***	.44***	1.00
5. Humanistic Qualities	.27***	.54***	.30***	.45***
Working Environment Satisfaction				
6. Extrinsic	.31***	.59***	.65***	.47***
7. Intrinsic	.30***	.28***	.29***	.26***
8. Evaluation	.22***	.34***	.28***	.25***
9. Teaching Performance	.25***	.23***	.23***	.19***
10. Teaching Efficacy	.21***	.29***	.23***	.28***
11. Commitment Orientation	.26***	.55***	.49***	.39***

* p<.05.

** p<.01.

*** p<.001.

5	6	7	8	9	10	11
1.00						
.38***	1.00					
.33***	.44***	1.00				
.16*	.45***	.16*	1.00			
.10	.25***	.15*	.20**	1.00		
.21**	.27***	.31***	.27***	.61***	1.00	
.42	.62***	.51***	.37***	.21***	.39***	1.00

Table 10. Relationships of position selection and job provisions (JP) with working environment satisfaction

	Working Environment Satisfaction		
	Extrinsic	Intrinsic	Evaluation
Position Selection	.31***	.30***	.22**
JP--Leadership	.59***	.28***	.34***
JP--Economic	.65***	.29***	.28***
JP--Empowerment	.47***	.26***	.25***
JP--Humanistic Qualities	.38***	.33***	.16*

* p<.05.

** p<.01.

*** p<.001.

satisfaction with teaching performance (for means and standard deviations of these variables, see Tables 1-4). The importance of position selection is positively related to teaching performance. The provisions of leadership, economics, and empowerment are positively related to teaching performance. Humanistic qualities does not have a positive relationship on teaching performance. Extrinsic satisfaction has the highest relationship on teaching performance. Evaluation has a relationship as does

intrinsic satisfaction. However, these are weaker relationships respectively.

Table 11. Relationship of position selection, job provisions (JP), and working environment satisfaction (WES) with teaching performance

	Teaching Performance
Position Selection	.25***
JP--Leadership	.23***
JP--Economics	.23***
JP--Empowerment	.19**
JP--Humanistic Qualities	.10
WES--Extrinsic	.25***
WES--Intrinsic	.15*
WES--Evaluation	.20**

* p<.05.

** p<.01.

*** p<.001.

Relationships of position selection, job provisions, working environment satisfaction, and teaching performance with teaching efficacy

Table 12 presents the correlations of position selection, the variables included in job provision, the

facet variables identified in working environment satisfaction, teaching performance with teaching efficacy (for means and standard deviations of these variables, see Tables 1-5). The positions selection variable is related. In comparison to the other variables, this relationship is rather weak. Leadership, economics, and empowerment are related very highly. Humanistic qualities is related but not as strongly. All three of the facet variables in working environment satisfaction have high positive relationships. The relationship of teaching performance to teaching efficacy is highly correlated.

Relationships of position selection, job provisions, working environment satisfaction, teaching performance, teaching efficacy with commitment orientation

Table 13 presents the correlations of position selection, the variables included in job provision, the facet variables identified in working environment satisfaction, teaching performance, teaching performance, teaching efficacy with commitment orientation (for means and standard deviations of these variables, see Tables 1-6). All the variables are related to commitment orientation.

Table 12. Relationship of position selection, job provisions (JP), working environment satisfaction (WES), and teaching performance with teaching efficacy

	Teaching Efficacy
Position Selection	.21*
JP--Leadership	.29***
JP--Economics	.23***
JP--Empowerment	.28***
JP--Humanistic Qualities	.21*
WES--Extrinsic	.27***
WES--Intrinsic	.31***
WES--Evaluation	.27***
Teaching Performance	.61***

* $p<.05$.

** $p<.01$.

*** $p<.001$.

Table 13. Relationship of position selection, job provisions (JP), working environment satisfaction (WES), teaching performance, and teaching efficacy with commitment orientation

	Commitment Orientation
Position Selection	.26***
JP--Leadership	.55***
JP--Economics	.49***
JP--Empowerment	.39***
JP--Humanistic Qualities	.42***
WES--Extrinsic	.62***
WES--Intrinsic	.51***
WES--Evaluation	.37***
Teaching Performance	.21**
Teaching Efficacy	.39***

* p<.05.

** p<.01.

*** p<.001.

Test of Proposed Model

Path analysis was conducted on the hypothesized model for prediction of position selection, job provisions, working environment satisfaction, teaching performance, teaching efficacy, and commitment orientation. Figure 2 shows the results of the significant paths of the proposed model. The unidirectional arrows are drawn from a particular indicator to all indicators with which a causal relationship is indicated. Table 14 provides a summary of the significant paths and their path coefficients.

There are two general criteria for evaluating the size of path coefficients: statistical significance and practical meaningfulness. Statistical significance at .05 level was used by this researcher.

Two paths were found to be statistically significant on the first endogenous variable, extrinsic satisfaction. These two paths were from the job provisions of economics and leadership. Fifty-two percent of the variance in extrinsic satisfaction was explained.

Three paths were found to be statistically significant when intrinsic satisfaction was the endogenous variable. The job provisions of economics and humanistic qualities plus the position selection variable were significant paths.

Table 14. Summary of significant ($p<.05$) path coefficients and unexplained variance of hypothesized model

Exogenous	Endogenous	Path Coefficients	Unexplained Variance
Leadership ------>	Extrinsic	.28	48%
Economics ------>	Extrinsic	.44	
Position Selection ------>	Intrinsic	.19	85%
Economics ------>	Intrinsic	.15	
Humanistic Qualities ------>	Intrinsic	.21	
Leadership ------>	Evaluation	.27	.85%
Position Selection ------>	Teaching Performance	.18	.88%
Intrinsic ------>	Teaching Efficacy	.21	.53%
Evaluation ------>	Teaching Efficacy	.13	
Teaching Performance ----->	Teaching Efficacy	.55	
Leadership ------>	Commitment Orientation	.19	.45%
Extrinsic ------>	Commitment Orientation	.32	
Intrinsic ------>	Commitment Orientation	.25	
Teaching Efficacy ------>	Commitment Orientation	.19	

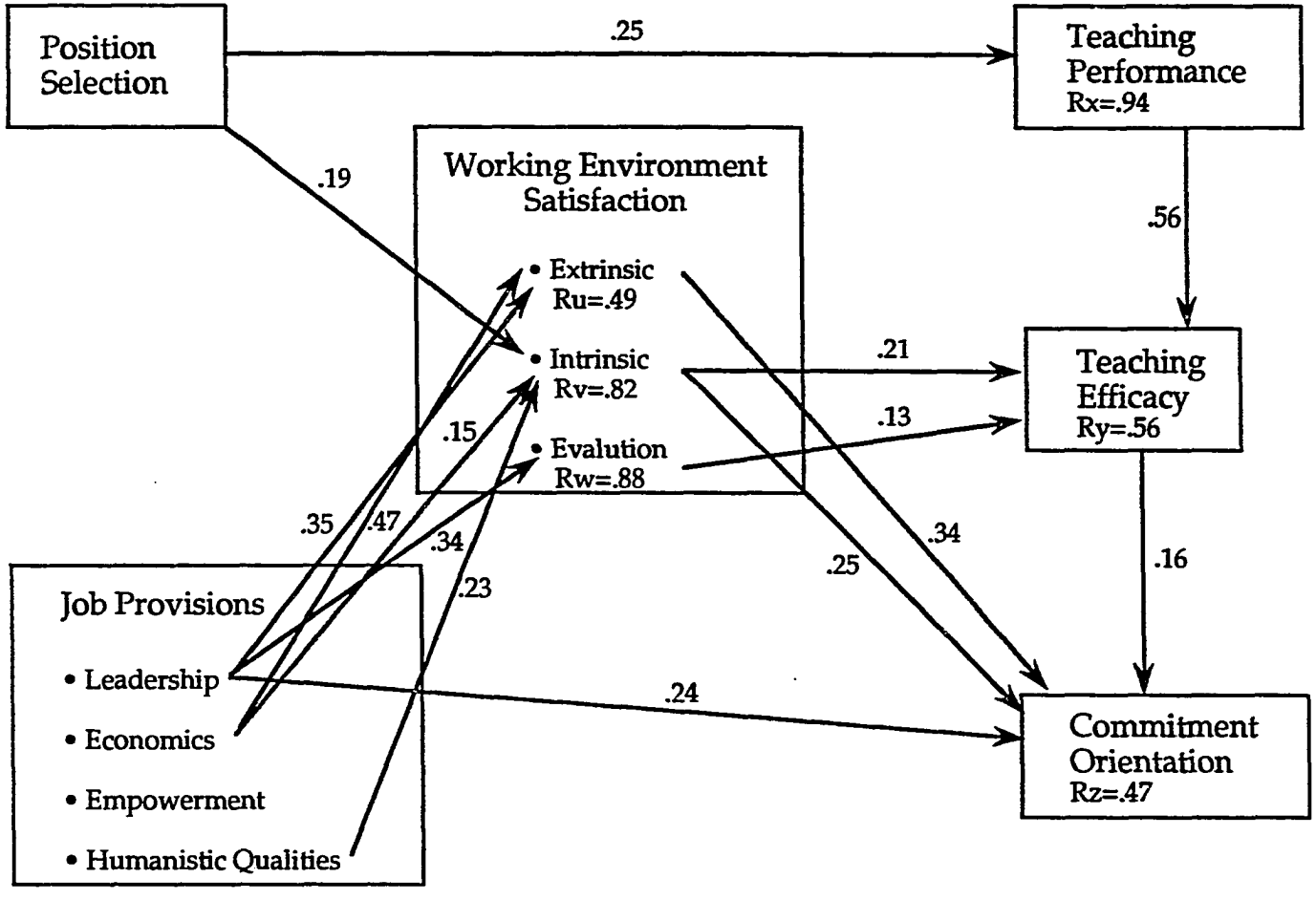

Figure 2. Model depicting the significant paths and the residuals of the reduced model

Nineteen percent of the variance in intrinsic satisfaction was explained.

Only one path showed significance on the endogenous variable of evaluation satisfaction. This was job provision leadership. Fifteen percent of the variance in evaluation satisfaction was explained.

Only one path was noted as significant on teaching performance. This was from position selection. Twelve percent of the variance in teaching performance was explained.

When teaching efficacy became the endogenous variable three paths were significant. Teaching performance, extrinsic satisfaction, and intrinsic satisfaction were significant. There was forty-seven percent of the variance explained in teaching efficacy.

The final endogenous variable of commitment orientation yielded four significant paths. These paths were: teaching efficacy, intrinsic satisfaction, extrinsic satisfaction, and the job provision of leadership. Fifty-five percent of the variance was explained in commitment orientation.

Summary A total of 42 paths were run in this analysis. Of the 42, 14 were significant at the .05 level. This is one-third of the indicators with hypothesized direct links.

Reduced model After the initial path analysis was conducted, the reduced model was analyzed. A summary chart of the significant paths, their path coefficients, and the unexplained variance is shown in Table 15. Figure 2 shows the results of the significant path of the reduced model. The unidirectional arrows are drawn from a particular indicator to all indicators with which a causal relationship is indicated.

Results of Discriminant Analysis

The discriminant analysis procedure used to predict commitment included 11 predictor variables. Since the predicator variables used in the discriminant analysis are the same variables used in the path analysis the intercorrelations are presented in Table 9. Group means and standard deviations are presented in Table 8.

On the basis of the teacher response to the question concerning their future plans five years from now, the four criterion groups were comprised. The groups were (1) teaching; (2) education but not teaching; (3) outside education; and (4) other.

Table 15. Summary of significant ($p<.05$) path coefficients and unexplained variance of the reduced model

Exogenous	Endogenous	Path Coefficients	Unexplained Variance
Leadership --------→	Extrinsic	.35	49%
Economics ---------→	Extrinsic	.47	
Position Selection ---------→	Intrinsic	.19	82%
Economics ---------→	Intrinsic	.17	
Humanistic Qualities ---------→	Intrinsic	.23	
Leadership --------→	Evaluation	.34	88%
Position Selection ---------→	Teaching Performance	.25	94%
Intrinsic ---------→	Teaching Efficacy	.21	56%
Evaluation --------→	Teaching Efficacy	.13	
Teaching Performance -------→	Teaching Efficacy	.56	
Leadership --------→	Commitment Orientation	.24	.47%
Extrinsic ---------→	Commitment Orientation	.34	
Intrinsic ---------→	Commitment Orientation	.25	
Teaching Efficacy ----------→	Commitment Orientation	.16	

A step-wise discriminant analysis procedure was used in which the 11 variables were allowed to enter one at a time, with an F to enter $\geq$ 1.0 and an F to remove $\leq$ 1.0 (SPSSX default values). Wilks' Lambda, a statistic which takes into account both the differences between groups and the homogeneity within groups, was used to determine the point at which the entry of an additional variable would not change the F-approximation significantly. The four variables remaining at the conclusion of the discriminant analysis determined the three functions that were derived from the analysis. Of the three functions, the first was significant at $p<.0001$ and two at $p<.05$. These four variables, the step at which each entered the analysis, the Wilks' Lambda value and significance of each, and the standardized discriminant function coefficient, which indicates the extent to which each variable contributed to the discriminating efficiency of each of the three functions, are presented in Table 16.

Presented in Table 17 are the group centroids. This represents the most typical position for each group and explains which groups differ on a function. Further explanation of group differences can be seen by the item-to-function correlations (Table 18). The item-to-function correlations provide information about how each of

Table 16. Summary table of variables in discriminant analysis of commitment

	Variables			
	Commitment Orientation	Humanistic Qualities	Intrinsic Satisfaction	Teaching Efficacy
Step entered into analysis	1	2	3	4
Wilks lambda at conclusion of analysis	.79	.77	.74	.73
Significance	.00	.00	.00	.00
Standardized discriminant functions coefficient				
Function I	.95	.14	-.22	.22
Function II	-.05	-.87	.64	.44
Function III	-.75	.64	.56	.48

Table 17. Canonical discriminant function evaluated at group means in discriminant analysis of commitment

Group	Group Centroids		
	Function I	Function II	Function III
Teaching	.29	.03	-.04
Education not teaching	-.12	-.71	.07
Outside education	-1.37	.07	-.05
Other	-.06	.29	.15

Table 18. Partial multivariant F values and pooled within-groups correlations between discriminating variables and canonical discriminant functions in discriminant analysis of commitment

	Partial Multivariate F-Value at Conclusion of Analysis	Item-to-Function Correlation		
		Function I	Function II	Function III
Position Selection	.69	.22	.03	.25
Job Provisions				
Leadership	.49	.56	-.19	.23
Economics	.17	.43	-.00	.09
Empowerment	.29	.40	-.09	.27
Humanistic Qualities	3.29	.45	-.61	.64
Working Environment Satisfaction				
Extrinsic	.11	.57	.03	.12
Intrinsic	2.00	.35	.44	.52
Evaluation	.42	.33	.07	.02
Teaching Performance	.59	.29	.25	.27
Teaching Efficacy	1.56	.50	.44	.50
Commitment Orientation	11.43	.96	.09	-.08

the variables within the groups is related to each of the functions. The larger the item-to-function correlation, the more a variable contributes to group differences. The group means and standard deviations of each predictor variable (Table 8) provides insight into where differences and similarities exist between and among groups.

Examination of the group centroids reveals the discrimination of the groups. The first function discriminated between those teaching and planning to be teaching in five years from those who are getting out of education completely. The discrimination on the function was R=.47. Discrimination on the second function (R=.25) was between those who plan to remain in education but not as teachers and the ones in the other group.

Presented in Table 19 are the results of the classification analysis. This analysis tests the accuracy of the functions to correctly classify the cases. Probabilities were incorporated into the classification procedure to improve the accuracy of correct classification prior to the discriminant analysis. This table shows that the prior probabilities of correct classification ranged from 9.7 percent to 62.9 percent. Overall, 64.96 percent of the teachers were classified correctly. The functions were

Table 19. Results of classification analysis

	Groups				
	Teaching	Education not	Outside Education	Other	Ungrouped Cases
Prior Probability[a] (%)	62.9	9.7	11.5	15.3	---
Actual number of cases	148	23	27	36	1
Predicted Group Membership[b]					
Teaching	139 (93.9%)	22 (95.7%)	14 (51.9%)	31 (86.1%)	1 (100.0%)
Teaching not education	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Outside education	9 (6.1%)	1 (4.3%)	13 (48.1%)	5 (13.9%)	0 (0.0%)
Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

[a]Based on 235 cases used in analysis, 10 cases had at least one missing discriminating variable.

[b]Overall, 64.96% of all cases were correctly classified.

most accurate in identifying those who are teaching and will be teaching in five years and those who are teaching and will remain in education.

In summary, of the eleven variables identified in the path analysis four were identified in the discriminant analysis procedure. These four variables were significant at the .0001 level.

CHAPTER V. DISCUSSION AND SUMMARY

Criticizing education and educators has always had a place in the United States and has been thriving in the '80s. Most of the experts agree that the need for reform is great and the time for reform is now. The problem is that there seems to be no agreement on how this should be done (Ashton & Webb, 1986).

Ashton and Webb (1986) believe that none of the reforms will be effective unless the demoralization of teachers is overcome. Their contention is that research should focus on an understanding of the decline in teachers' motivation. They have begun some important studies examining the conditions that make teaching frustrating and stressful; thus leading to a decline of committed educators.

The purpose of the present research was to identify and examine variables that have been identified in the literature as having pertinence in the educational realm. A search for possible causal factors leading to commitment to stay in the teaching profession was the ultimate purpose.

Discussion of Correlational Data

A large number of correlation coefficients were calculated in this study. In examining these coefficients,

an effort was made to look for patterns among significant correlations to formulate a theory to link variables. This was the first step to make before the path analysis could be developed.

Relationships of position selection, job provisions with working environment satisfaction

The composite score used to measure position selection and the variables identified under job provisions were significantly related to the facet variables identified with working environment satisfaction. These findings are in keeping with Argyris' (1972) statement concerning the congruence between work requirement and individual aspirations influencing the perception of satisfaction.

Relationships of position selection, job provisions, and working environment with teaching performance

The position selection variable had a positive relationship with teaching performance. The variables identified under job provision had a positive relationship except humanistic qualities. All the facets identified in working environment satisfaction had a relationship. In fact, the extrinsic variable had a high correlation. Chapman and Hutcheson (1982) found that teachers' skills and abilities were meaningfully related to teachers' level of

career satisfaction. Even though Chapman and Hutcheson's statement concerns overall satisfaction, it is meaningful at this point and will be given more attention in the discussion of commitment orientation.

Relationships of position selection, job provisions, working environment satisfaction, teaching performance, with teaching efficacy

All the variables were significantly related with teaching efficacy. The magnitude of the relationship denotes a weaker relationship in the position selection variable and humanistic qualities in the area of job provisions. This is supportive of Bandura's (1982) work concerning efficacy in which he says self-efficacy requires a responsive environment that allows for and rewards performance attainment. Gibson and Dembo (1984) said that teachers' evaluation of their abilities to bring about positive student change would be indicated by their self-efficacy beliefs. The high correlation of teaching performance to teaching efficacy provides another corroboration of their statement.

Relationships of position selection, job provisions, working environment satisfaction, teaching performance, teaching efficacy with commitment orientation

All the variables of this study were related to commitment orientation. The operationalization of the commitment orientation variable uses the measures that are also identifiable with overall or global satisfaction. The findings from the correlational data are very supportive of previous studies (Chapman & Hutcheson, 1982; Chapman & Lowther, 1982; Holland, 1973; Super & Hall, 1978).

Discussion of Hypothesized Model (Hypothesis 1)

One-third of the hypothesized causal variables did, in fact, show direct effects. An examination of the exogenous variables shows the significant direct links.

Position selection and job provision provided the first exogenous variables. Position selection provided a direct link only to teaching performance. Job provisions were identified by four variables. Of these four variables, six direct links were determined. The leadership variable provided links to the variables in working environment satisfaction identified as extrinsic and evaluation. Leadership also linked to the commitment orientation variable. The economic variable linked to working

environment satisfaction in both extrinsic and intrinsic. Empowerment did not provide any direct links. The humanistic qualities only linked to working environment satisfaction identified as intrinsic.

Working environment as an exogenous variable provided four more direct links. The extrinsic variable provided a link to commitment orientation. Intrinsic linked to teaching efficacy and commitment orientation. Evaluation linked only to teaching efficacy.

When teaching performance and teaching efficacy were added, respectively as exogenous variables, the last two direct links were provided. Teaching performance linked to teaching efficacy. Teaching efficacy linked to commitment orientation.

An analysis of the results would be amiss without looking at the unexplained variance in each endogenous variable. The extrinsic variable of working environment satisfaction had an unexplained variance of 48%. Both intrinsic and evaluation of working environment have unexplained variances of 85%. The endogenous variable of teaching performance yielded an unexplained variance of 88%. There was 53% unexplained variance in teaching efficacy. The final endogenous variable of commitment orientation had only 45% unexplained variance.

The importance teachers placed on position selection was only an effective predictor of the intrinsic facet of working environment satisfaction and teaching performance. In speculating about the reasons pertaining to these results, one must carefully examine the predictor variable and the teaching performance variable. The predictor, position selection, measure was used as a composite score. Even though the reliability for its usage was .67, perhaps it should have been divided into more factors. Also the question of how long the teachers had been in that particular position was not addressed. If the teachers had been in the same position all five of their teaching years, it would be hard to discern the importance that had been placed on the selection five years ago. This particular variable did not investigate the aspect that some teachers are site-bound in their employment.

Provisions in the job did have predictive value on working environment satisfaction facets. The extrinsic facet was influenced the most by leadership and economics. The variable defined by humanistic qualities showed only direct linkage to the intrinsic variable. The empowerment variable provided no direct linkage. The question arises as to the ability to measure empowerment and humanistic qualities. Something else should be considered concerning

the area of empowerment. This researcher tends to agree with Maeroff (1988) when he said many teachers say that they do not want responsibility for all the decisions in their schools. Instead, teachers desire to be heard and heeded. Thus, empowering teachers does not mean that the principals stop being in charge. More consultation and collaboration would be a better philosophy.

Even though humanistic qualities only had an effect on one variable, it was a very important variable. Schools will always have instability in the areas of extrinsic and evaluation satisfaction. Motivational theorists say that the only assured reward is intrinsic. This educator still believes that teaching is a rewarding career. The present study provided evidence that the reward was noted in a persistence in the career of teaching.

Working environment satisfaction provided predictor linkage in all three facets. The extrinsic and intrinsic facets provided linkage to the commitment orientation variable. This was supportive of the theory upon which this research was based. Intrinsic and evaluation facets of satisfaction were also predictive of teaching efficacy. Much of the literature indicates that evaluation is an integral part of the entire teaching enterprise. Referring back to the question of whether or not it was measured in

this study as a satisfier or a dissatisfier might offer some insight into its rather weak linkages and predictor capabilities. Satisfaction with evaluation is supportive of the need for feedback in helping maintain a sense of efficacy.

This study yielded a low explained variance on the teaching performance variable. There was also no direct link to teaching performance from any of the hypothesized variables with the exception of position selection. Adequate explanation is probably not possible. Looking at different teachers and different schools juxtaposes several distinct bodies of sociological and social psychological theory. One has to do with the uncertainty many teachers face as they go about their work. This perhaps could offer some insight into the question concerning why the teaching performance variable did not yield much conclusive evidence in this study. In other words, there seems to be much uncertainty about how teaching should best be done in ways that enable students to learn and grow. For teachers, uncertainty comes if the outcomes of work are highly unpredictable because of the variablity of their students (Rosenholtz, 1989).

One of the most satisfying results of this study was the significant influence teaching performance had on

teaching efficacy. As stated earlier, the literature was very inconclusive about defining and measuring efficacy. Also, there was no evidence in the literature that clearly aligned either teaching performance or teaching efficacy directly with cause or effect. The current research certainly offers help in both the definition and the measurement of these variables.

Commitment orientation was measured by general satisfaction variables. The variables that provided direct links were of no surprise to this reasearcher. The ones that did not certainly need examination in future research. It is important to note that even though teacher salaries have gone up in the past five years, evidently it is going to take more than that to retain satisfied and committed teachers. Teaching efficacy did have predictive value on the commitment orientation.

Discussion of Discriminant Analysis (Hypothesis 2)

Commitment was measured by responses concerning the future plans of the teachers answering the questionnaire. The assumption of this measure was that if the teachers had been teaching for five years and planned to remain in teaching for five more years then there was an indication of commitment. That measure and the literature noting the

early defection from teaching gives support to this assumption.

The same variables that were used in path analysis were used in the discriminant analysis. The results showed four variables to be significant at .0001 level. These four variables were: commitment orientation, humanistic qualities, intrinsic satisfaction, and teaching efficacy.

Although there was a low yield of significant variables on commitment to teaching as a career, an important finding is the fact that the four variables came from four major portions of the hypothesized model. Since the present research was developed with the area of teacher retention being an issue, it added some more evidence to help educators solve the problem of teacher attrition.

Summary

Much of the research indicates that when teaching as a profession is strengthened, schooling and instruction will improve as a result. This research was an attempt to look at the variables (position selection, job provisions, working environment satisfaction, teaching performance, teaching efficacy, and commitment orientation) and to determine some of the factors that would add to the improvement and commitment to the profession.

The work of Super and Hall (1978) identified values that relate to career satisfaction. Their point is that people who feel challenged by their work, who have autonomy in carrying out their task, and who feel adequately rewarded are more apt to persist in and be satisfied with their employment. The theoretical model proposed in this research was constructed and investigated with this as a foundation and with the realization that the teaching career is different from many other careers in all three aspects .

The investigation produced some very positive results from the questions asked concerning the relationships of the variables. It also gave support to some of the predictor variables in the hypothesized causal model. The significant variables add support to the theory upon which the model was based. The insignificant variables produce questions to answer later and to speculate on why they were insignificant at this time with this data.

Because commitment is such an integral part of the teaching profession, this research went beyond commitment orientation in the analysis of commitment. The results of this analysis supports Chapman's (1983) contention that career satisfaction plays an important role in teachers' persistence in teaching, particularly as it mediated the influence of other factors on their careers.

The construction of a model is very exploratory in nature. Because the literature was not clear in rendering conclusive evidence, many questions arose throughout the entire process. Getting the results provided this researcher some satisfaction. The results also verify the need for further research in the area of teachers' perceptions and attitudes. This model provides a foundation on which other models can be built for further research and justification. Also, this particular model could be justified using a different data base.

Limitations

1. This study did not employ an experimental design. Therefore, any assignment of cause and effect was based on the theoretical model proposed.
2. A study of this nature is always susceptible to measurement error. Because the instrument relied on self-report, some respondents may have given inaccurate information.
3. Measurement of the constructs in the model may not be completely accurate.
4. Stress should be placed on the exploratory nature of this study. It was the intent of this investigator to develop a preliminary model which can later be refined and retested.

5. The data used in this study were from teachers remaining in the field after five years, rather than those who left previously. Measuring commitment would have been more accurate if data had also been collected from those who had left the profession.

Recommendations for Further Research

Gibson and Dembo (1984) related a need for an investigation of the relationships between teacher characteristics (i.e., sex, years of teaching experience, grade levels, and personal attributes) and sense of efficacy. The present study only took into account teachers with five years of teaching experience. It would certainly be fitting to investigate the other factors.

Ashton and Webb (1986) defined efficacy as two dimensional. The present study measured only one dimension. The dimension pertaining to teachers' expectations that teaching can influence student learning needs to be defined, measured, and examined.

There is much literature being written concerning the area of empowerment. Defining and constructing the variable of empowerment seems to be difficult. Certainly more investigation and quantification needs to be done in that area.

Because teaching performance in schools is evaluated by principals and supervisors, it would be wise to do a path analytic model evaluation using measures other than self-report on that variable in particular.

Commitment to the profession of teaching needs further study. Research needs to continue concerning the area of why many of the most able are leaving the field. One way to do that would be to collect more qualitative and quantitative data from those who have left teaching either before five or after five years.

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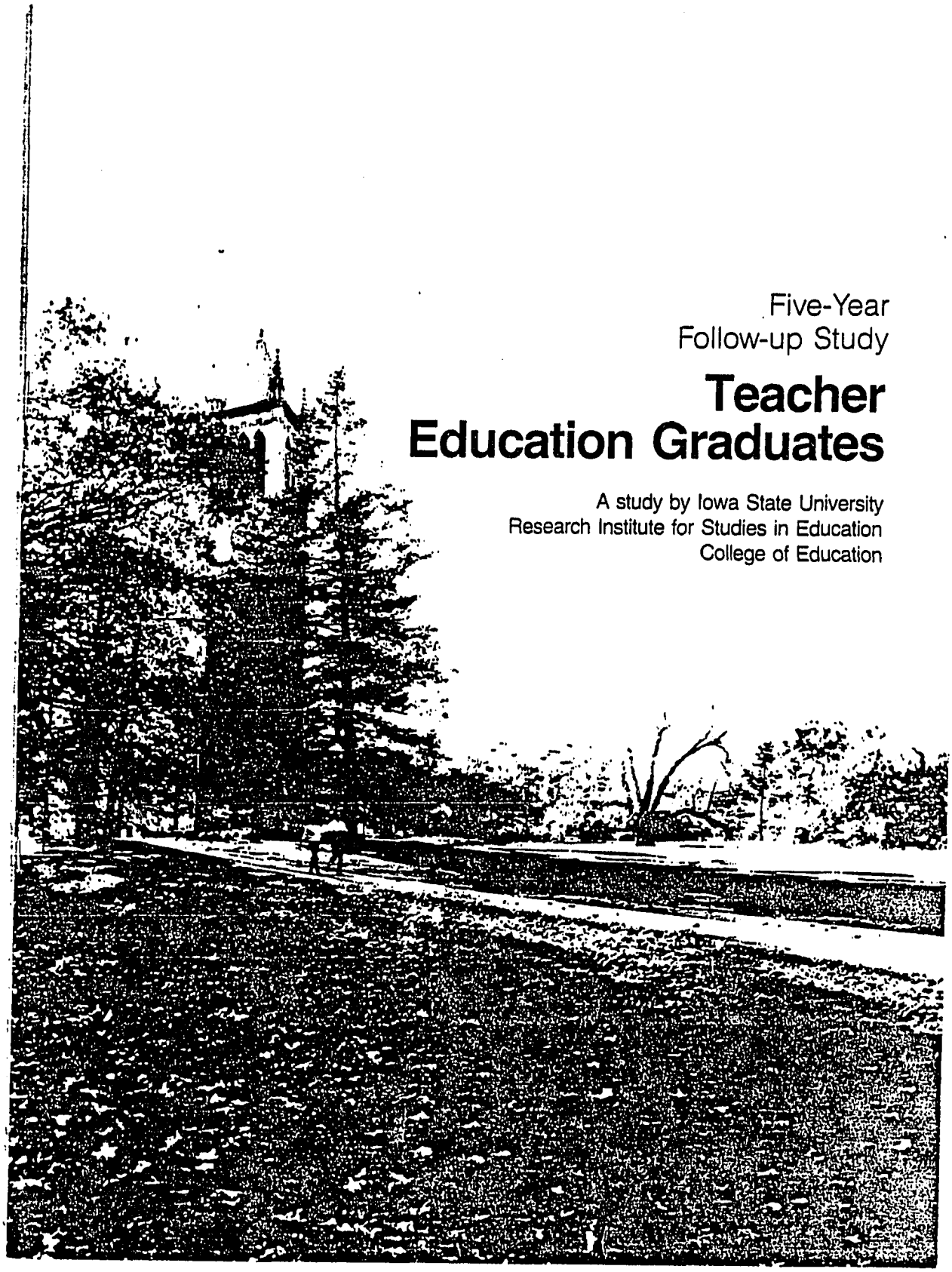
A special thank you must be given to my family. Thanks for the support and the understanding of my distance in miles and attitude. I give an even larger thank you for the intrinsic knowledge of your caring. Mother, Gary, Barb, and Brent, you mean more to me than you will ever know.

APPENDIX A. LETTERS AND QUESTIONNAIRE TO SURVEY PARTICIPANTS



Five-Year
Follow-up Study

Teacher Education Graduates

A study by Iowa State University
Research Institute for Studies in Education
College of Education

Iowa State University of Science and Technology Ames, Iowa 50011-3190

Research Institute for Studies in Education
College of Education
Lagomarcino Hall
Telephone 515-294-7009

February 8, 1988

Dear Teacher Education Graduate of 1982/1983:

In an effort to improve and update the current Teacher Preparation Program at Iowa State University, we are seeking information from you about the program and your activities since graduation. We need your opinions, observations, and employment history in order to modify our current program and to develop new programs.

Many of you participated in similar evaluation projects five years ago at the time of your graduation, and one year after that. We now seek updated information from you about your experiences since graduating from Iowa State. In order to ensure that the results are representative of Iowa State graduates with five years of experience, it is important that each questionnaire is completed and returned. Your voluntary participation in this phase of our study would be appreciated.

We ask that you complete the enclosed questionnaire, tape it closed, and place it in a mailbox (no stamp required).

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing and matching purposes. Your name will not be placed on the questionnaire. The information provided will be analyzed and reported in terms of group summarizations, not individual responses.

We thank you in advance for your cooperation in completing the questionnaire and for your continuing role in helping to shape and improve the Teacher Preparation Program at Iowa State University.

We wish you success in all your future activities.

Sincerely,

Virgil S Lagomarcino

Virgil Lagomarcino, Dean
College of Education

Richard D Warren

Richard D. Warren, Director
Research Institute for Studies in Education

RDW/pjd

Iowa State University of Science and Technology Ames, Iowa 50011-3190

Research Institute for Studies in Education
College of Education
Lagomarcino Hall
Telephone 515-294-7009

March 7, 1988

Dear Teacher Education Graduate of 1982/1983:

We know that this is a very busy time for you but we do need your help!

You recently received a questionnaire from us asking you to evaluate the Teacher Preparation Program and about your employment history and activities since graduation. To date, we have not received your completed questionnaire. If you have mailed it recently, we want you to know that your participation is appreciated.

If you have not mailed your questionnaire, we would ask you to complete the enclosed questionnaire (or the first one) and drop it in a mailbox.

We have had a very good completion record and return rate from our graduates and would like very much to have your responses to include in the tabulation.

Thank you for your voluntary participation in the study. We appreciate the time and effort involved, and believe that your responses will be useful for the improvement of the Teacher Preparation Program at Iowa State University.

Sincerely,

Virgil S. Lagomarcino

Virgil Lagomarcino, Dean
College of Education

Richard D. Warren

Richard D. Warren, Director
Research Institute for Studies in Education

RDW/pjd
Enclosure

A Note to Respondents

In recent years, the teaching profession has been marked by rapid change and the emergence of a number of issues and concerns. It is essential that teacher preparation programs be responsive to these concerns. Therefore, the ISU College of Education is developing a comprehensive model to evaluate and to improve the quality of the teacher preparation program. Your reactions to and responses about your preparation and subsequent employment experiences are a major ingredient of this model.

Various approaches are used by colleges of education to evaluate, improve, and modify programs for the preparation of educational personnel. Among these approaches in the evaluation process is a follow-up study of graduates from preparation programs. To provide the necessary information for program improvement, the data need to be collected on a regular basis and over a period of time. These longitudinal studies are beneficial in providing insights about program strengths and weaknesses and in assisting in program improvement and modification.

Since 1979, the Research Institute for Studies in Education (RISE) has been collecting data from teacher education graduates at major points in their preparation and careers. Now, five years after graduation, we are contacting you again for information about your current attitudes, competencies, and personal characteristics and about your employment history since graduation. The information we receive is summarized and presented in a report that is discussed by faculty in the College of Education as they plan changes for improving and updating the teacher preparation program. As mentioned in the accompanying letter, no individual responses are ever reported.

These data, collected over the past eight years, have been very helpful in keeping the ISU Teacher Preparation Program current and responsive to changing educational needs. Your input is very much appreciated.

FIRST, we would like to ask you questions about your current employment.

1. What is your current employment situation?

___ Teaching ---> Please answer PART A, then skip to page 3, PART C.

___ Nonteaching ---> Please skip to PART B, page 2.

PART A (Teaching)

(a) What level do you teach?

___ Preschool/Kindergarten

___ Elementary (Grades 1-6)

___ Secondary (Grades 7-12)

___ K-12

(b) Are you teaching ...

___ ... Full time?

___ ... Part time?

___ ... Substitute?

___ ... Other?

(c) At the present, what subject area(s) do you teach? _____

_____

(d) What are your plans for next year?

___ Remain in same position.

___ Seek similar position elsewhere.

___ Employment in education other than teaching.

Please specify---->_____

___ Employment outside education

Please specify---->_____

___ Other Please specify---->_____

PART B (Nonteaching)

(a) What are your reasons for not teaching at the present time? Check as many as apply.

___ Graduate study. (Please specify area _____)

___ Could not find a teaching position.

___ Inadequate salaries and benefits.

___ General working conditions (nonteaching duties, hours, classroom size, work load).

___ Student related (motivation, lack of discipline, general attitudes).

___ Feelings of ineffectiveness.

___ Administrator related (lack of support, dissatisfaction with administration, incompetent administration).

___ Lack of respect.

___ Emotional aspects (stress, burnout, frustration, boredom).

___ Lack of support from parents and community.

___ Lack of advancement opportunities.

___ Family obligations.

___ Had not planned to teach.

___ Better salaries and career opportunities in other fields.

___ Other (please specify) _____

(b) What are your employment plans for next year?

___ Remain in same position.

___ Seek similar position elsewhere.

___ Seek teaching position.

___ Employment in education other than teaching.

___ Other (please specify) _____

PART C (All Respondents)

(a) We are interested in your employment history (jobs) for the last five years. Using the occupational code below, please list your major employment for each of the last five years, starting with your current position.

1 Teacher
2 Education-related (non-teaching)
3 Other professional
4 Technical
5 Managerial/Administrative
6 Sales/Business
7 Craftsman/Operative
8 Clerical/Secretarial/ Administrative support
9 Service
10 Homemaker
11 Farmer
12 Student
13 Unemployed
14 Other (specify)_____

YEAR (Following graduation)	POSITION (Occupational Code Number)	LOCATION (State/Country)
Fifth Year (Current Position)	_____	_____
Fourth Year	_____	_____
Third Year	_____	_____
Second Year	_____	_____
First Year	_____	_____

Any comments about your employment history: _____

_____

_____

_____

(b) Five years from now, do you plan to be . . .

___ Teaching

___ Employed in education other than teaching

___ Employed outside the field of education

___ Other (please specify) _____

ALL RESPONDENTS

2. How would you rate on a scale of 0 to 10 your general satisfaction with your current (most recent*) job?

Very Low Very High

0 1 2 3 4 5 6 7 8 9 10

*Note: If you are currently unemployed, please answer questions 2, 3, and 4 as they pertained to your most recent position.

3. How important were each of the following factors in your decision to accept your most recent position? Please circle one number for each factor. Use the following response categories.

Very Important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very Unimportant . . 1
Not Applicable . . . N

		Please circle your response					
a.	Desirable location	5	4	3	2	1	N
b.	Salary offered	5	4	3	2	1	N
c.	Type of position	5	4	3	2	1	N
d.	Size of organization	5	4	3	2	1	N
e.	Reputation of school, firm or organization	5	4	3	2	1	N
f.	Liked people with whom I interviewed . . .	5	4	3	2	1	N
g.	Spouse has a job in the community.	5	4	3	2	1	N
h.	Only job I was offered	5	4	3	2	1	N

4. To what extent does (did) your most recent job provide you with the following characteristics? Please circle one number for each characteristic. Use the following response categories.

All of the Time 5
Most of the Time 4
Some of the Time 3
Seldom 2
Never 1

		Please circle your response				
a.	Opportunity to be creative and original. . .	5	4	3	2	1
b.	Opportunity to use special abilities or aptitudes.	5	4	3	2	1
c.	Opportunity to work with people rather than things.	5	4	3	2	1
d.	Opportunity to earn a good deal of money . .	5	4	3	2	1
e.	Social status and prestige	5	4	3	2	1
f.	Opportunity to effect social change.	5	4	3	2	1
g.	Relative freedom from supervision by others.	5	4	3	2	1
h.	Opportunity for advancement.	5	4	3	2	1
i.	Opportunity to exercise leadership	5	4	3	2	1
j.	Opportunity to help and serve others	5	4	3	2	1
k.	Adventure.	5	4	3	2	1
l.	Opportunity for a relatively stable and secure future.	5	4	3	2	1
m.	Fringe benefits (health care, retirement benefits).	5	4	3	2	1
n.	Variety in the work.	5	4	3	2	1
o.	Responsibility	5	4	3	2	1
p.	Control over what I do	5	4	3	2	1
q.	Control over what others do.	5	4	3	2	1
r.	Challenge.	5	4	3	2	1

NOW we would like you to evaluate the Teacher Preparation Program.

5. We would like you to rate your Teacher Preparation Program in specific areas: first, rate the adequacy of preparation; second, indicate how important the area is (was) to your most recent position.

	Very Adequate . . 5 Adequate . . . . 4 Neutral. . . . . 3 Inadequate . . . 2 Very Inadequate. 1 Not Applicable . N	Very Important . 5 Important. . . . 4 Neutral. . . . . 3 Unimportant. . . 2 Very Unimportant 1 Not Applicable . N
1) Planning units of instruction and individual lessons	5 4 3 2 1 N	5 4 3 2 1 N
2) Preparing and using media. . . .	5 4 3 2 1 N	5 4 3 2 1 N
3) Maintaining student interest . .	5 4 3 2 1 N	5 4 3 2 1 N
4) Understanding and managing behavior problems in the classroom	5 4 3 2 1 N	5 4 3 2 1 N
5) Teaching basic skills.	5 4 3 2 1 N	5 4 3 2 1 N
6) Consultation skills in interacting with other professionals.	5 4 3 2 1 N	5 4 3 2 1 N
7) Developing student-student relationships.	5 4 3 2 1 N	5 4 3 2 1 N
8) Referring students for special assistance	5 4 3 2 1 N	5 4 3 2 1 N
9) Skills for mainstreaming handicapped students.	5 4 3 2 1 N	5 4 3 2 1 N
10) Methods of working with children with learning problems	5 4 3 2 1 N	5 4 3 2 1 N
11) Assessing learning problems. . .	5 4 3 2 1 N	5 4 3 2 1 N
12) Developing tests	5 4 3 2 1 N	5 4 3 2 1 N
13) Interpreting and using standardized tests	5 4 3 2 1 N	5 4 3 2 1 N
14) Content preparation in your area of specialization	5 4 3 2 1 N	5 4 3 2 1 N
15) Professional ethics and legal obligations.	5 4 3 2 1 N	5 4 3 2 1 N

		ADEQUACY						IMPORTANCE					
16)	Psychology of learning and its application to teaching. . .	5	4	3	2	1	N	5	4	3	2	1	N
17)	Evaluating and reporting student work and achievement	5	4	3	2	1	N	5	4	3	2	1	N
18)	Relating activities to interests and abilities of students. . . .	5	4	3	2	1	N	5	4	3	2	1	N
19)	Using written communication effectively.	5	4	3	2	1	N	5	4	3	2	1	N
20)	Locating and using materials and resources in your specialty area	5	4	3	2	1	N	5	4	3	2	1	N
21)	Evaluating your own instruction.	5	4	3	2	1	N	5	4	3	2	1	N
22)	Individualizing instruction. . .	5	4	3	2	1	N	5	4	3	2	1	N
23)	Selecting and organizing materials.	5	4	3	2	1	N	5	4	3	2	1	N
24)	Using a variety of instructional techniques	5	4	3	2	1	N	5	4	3	2	1	N
25)	Understanding teachers' roles in relation to administrators, supervisors, and counselors. . .	5	4	3	2	1	N	5	4	3	2	1	N
26)	Working with parents	5	4	3	2	1	N	5	4	3	2	1	N
27)	Working with other teachers. . .	5	4	3	2	1	N	5	4	3	2	1	N
28)	Assessing and implementing innovations.	5	4	3	2	1	N	5	4	3	2	1	N
29)	Appreciating and understanding individual and intergroup differences in values and lifestyles	5	4	3	2	1	N	5	4	3	2	1	N
30)	Using community resources. . . .	5	4	3	2	1	N	5	4	3	2	1	N
31)	Techniques of curriculum construction	5	4	3	2	1	N	5	4	3	2	1	N
32)	Influence of laws and policies related to schools	5	4	3	2	1	N	5	4	3	2	1	N
33)	Techniques for infusing multicultural learning	5	4	3	2	1	N	5	4	3	2	1	N
34)	Developing your own teaching style by observing others . . .	5	4	3	2	1	N	5	4	3	2	1	N

6. On a scale of 0 to 10 how would you rate the quality of the Teacher Preparation Program at Iowa State University? (Please circle the appropriate number.)

Very Poor Very High

0 1 2 3 4 5 6 7 8 9 10

7. In what three ways did the program provide the most valuable professional preparation for you?

(1) _____

(2) _____

(3) _____

8. In what three ways should the program have offered more preparation?

(1) _____

(2) _____

(3) _____

9. If you had it to do over again, would you prepare to become a teacher?

___ Yes

___ No

___ Undecided

10. What program improvements would you suggest for easing the transition from student to first-year teacher?

_____

_____

_____

_____

NOW we would like to ask you about your professional development in the last five years.

11. Have you upgraded your skills through formal education since graduating from the teacher preparation program?

___ Yes ----> Please answer (a) and (b)
___ No

(a) If yes, please check as many purposes as apply for participating in the formal education activities, and, for each purpose you check, indicate where you participated in the activity.

		LOCATION			
	PURPOSE	4-Year college/ university	2-Year college	Area Education Agency (AEA)	Other (specify)
___	Prepare for different type teaching position (certification)	_____	_____	_____	_____
___	Prepare for different type position in education--nonteaching	_____	_____	_____	_____
___	Prepare for different type position outside education	_____	_____	_____	_____
___	Recertification, job requirement	_____	_____	_____	_____
___	Professional development	_____	_____	_____	_____
___	Personal growth	_____	_____	_____	_____

(b) If yes, was this a degree program?

___ Yes ---> Type of degree ___ Undergraduate ___ Masters
___ Graduate ___ Doctoral

---> ___ Number of semester hours

___ No ---> ___ Number of semester hours
___ Number of CEU credits
___ Other (specify) _____

If you have NEVER TAUGHT during the five years following graduation, go to page 12. CURRENT AND FORMER TEACHERS, please answer questions 12 and 13 first.

CURRENT AND FORMER TEACHERS ONLY

12. We would like you to rate your perception of your teaching behavior in each of the following areas. Using the scale below, circle the number for each area that indicates how well you are doing or did in your most recent teaching position.

	Very Low										Very High
a. Providing a setting conducive to learning	0	1	2	3	4	5	6	7	8	9	10
b. Motivating students	0	1	2	3	4	5	6	7	8	9	10
c. Demonstrating knowledge of subject matter	0	1	2	3	4	5	6	7	8	9	10
d. Monitoring and evaluating student progress and understanding	0	1	2	3	4	5	6	7	8	9	10
e. Providing clear, concise explanations and examples	0	1	2	3	4	5	6	7	8	9	10
f. Managing instructional activities efficiently and ensuring student time on task	0	1	2	3	4	5	6	7	8	9	10
g. Communicating effectively with students	0	1	2	3	4	5	6	7	8	9	10
h. Demonstrating effective planning and organization skills	0	1	2	3	4	5	6	7	8	9	10
i. Exhibiting a positive self-concept	0	1	2	3	4	5	6	7	8	9	10
j. Using evaluation activities appropriately	0	1	2	3	4	5	6	7	8	9	10
k. Implementing the lesson plans effectively	0	1	2	3	4	5	6	7	8	9	10
l. Maintaining high expectations for student achievement	0	1	2	3	4	5	6	7	8	9	10
m. Incorporating effective questioning techniques	0	1	2	3	4	5	6	7	8	9	10
n. Maintaining high standards for student behavior	0	1	2	3	4	5	6	7	8	9	10
o. Maintaining effective working relationships with peers and administrators	0	1	2	3	4	5	6	7	8	9	10

13. We also would like your perceptions about employment factors related to teaching. Please indicate how satisfied you are/were with each of the following aspects of teaching. Use the following response categories.

Very Satisfied 5
Satisfied 4
Neutral 3
Dissatisfied 2
Very Dissatisfied . . 1
Not Applicable . . . . NA

(Circle your response)

a.	Salary	5	4	3	2	1	NA
b.	General working conditions	5	4	3	2	1	NA
c.	Amount of administrative support received	5	4	3	2	1	NA
d.	Relationship with other teachers	5	4	3	2	1	NA
e.	Extent of involvement in decision making	5	4	3	2	1	NA
f.	Job benefits	5	4	3	2	1	NA
g.	Job responsibilities	5	4	3	2	1	NA
h.	Extent to which job challenged and provided for professional growth	5	4	3	2	1	NA
i.	Level of job performance	5	4	3	2	1	NA
j.	Opportunities for advancement	5	4	3	2	1	NA
k.	Method with which job performance evaluated	5	4	3	2	1	NA
l.	Frequency with which job performance evaluated	5	4	3	2	1	NA
m.	Size of community in which employed	5	4	3	2	1	NA
n.	Support given by family and friends for choice of teaching as a career	5	4	3	2	1	NA
o.	Amount of time spent working at job	5	4	3	2	1	NA
p.	Relationship with students	5	4	3	2	1	NA
q.	Level of parental involvement	5	4	3	2	1	NA
r.	Role played in professional associations	5	4	3	2	1	NA
s.	Community support for education	5	4	3	2	1	NA
t.	Teaching as a career	5	4	3	2	1	NA

NOW we would like to ask you some general questions about yourself and your family.

14. Marital status

___ Single (never married)

___ Married

___ Divorced, separated, or widowed

15. Do you have any children?

___ Yes ---> How many? _____

___ No

16. What is the population of the community where you are currently or were most recently employed?

___ Under 1,000

___ 1,000 - 2,499

___ 2,500 - 4,999

___ 5,000 - 9,999

___ 10,000 - 24,999

___ 25,000 - 50,000

___ Over 50,000

17. Which of the following categories best describes your <u>total</u> income during last year? (If married, include spouse's income)

___ less than $ 9,999

___ $10,000 to $14,999

___ $15,000 to $19,999

___ $20,000 to $24,999

___ $25,000 to $29,999

___ $30,000 to $49,000

___ $50,000 and over

If you have any additional comments about teacher preparation or teaching in general, please use the space below.

The College of Education and the Research Institute for Studies in Education appreciate the time you have taken to complete this questionnaire.

Postage for the questionnaire is prepaid, so all you need do is tape it and drop it in a mailbox.

APPENDIX B. TABLES OF DATA ANALYSIS

Table 20. Results of data collected from five-year follow up of graduates of ISU for position selection (N=229)

	Alpha[a]
Position Selection	.67
Desirable location	
Salary	
Size of organization	
Reputation of school	
Liked interviewer	

[a] Reliability coefficient alpha.

Table 21. Means and standard deviation of importance of job provisions (N=245)

Job Provisions (category/items)	Alpha[a]
Leadership	.81
Challenge	
Responsibility	
Variety in the work	
Opportunity to exercise leadership	
Adventure	
Control over what others do	
Economic	.74
Opportunity to earn a good deal of money	
Opportunity for advancement	
Social status and prestige	
Opportunity for a relatively stable and secure future	
Fringe benefits	
Empowerment	.79
Opportunity to be creative and original	
Opportunity to use special abilities or aptitudes	
Control over what I do	
Relative freedom from supervision by others	
Humanistic Qualitites	.64
Opportunity to help and serve others	
Opportunity to effect social change	
Opportunity to work with people rather than things	

[a] Reliability coefficient alpha.

Table 22. Working environment satisfaction results of factor analysis using data collected from five-year follow up of ISU graduates (N=229)

Working Environment Satisfaction (category/items)	Alpha[a]
Extrinsic	.83
Salary	
General working conditions	
Job benefits	
Amount of administrative support received	
Extent of involvement in decision making	
Opportunities for advancement	
Job responsibilties	
Extent to which job challenged and provided for professional growth	
Intrinsic	.61
Level of parental involvement	
Community support for education	
Relationship with students	
Size of community in which employed	
Evaluation	.84
Method of job evaluation	
Frequency of job evaluation	

[a] Reliability coefficient alpha.

Table 23. Teaching performance results of factor analysis using data collected from five-year follow up of ISU graduates (N=229)

	Alpha[a]
Teaching Performance	.79
Demonstrating knowledge of teaching matter	
Monitoring and evaluating student progress understanding	
Providing clear, concise explanations and examples	
Demonstrating effective planning and organizational skills	
Using evaluation activities appropriately	
Implementing the lesson plans effectively	

[a] Reliability coefficient alpha.

Table 24. Teaching efficacy results of factor analysis using data collected from five-year follow up of ISU graduates (N=229)

	Alpha[a]
Teaching Efficacy	.84
Providing setting conducive to learning	
Motivating students	
Communicating effectively with students	
Exhibiting a positive self-concept	
Maintaining high expectations for student achievement	
Incorporating effective questioning techniques	
Maintaining high standards for student behaviors	

[a] Reliability coefficient alpha.

Table 25. Frequency distribution of position selection

Factor	Value Label	Frequency	Valid %
Desirable Location			
	Very unimportant	7	2.9
	Unimportant	9	3.7
	Neutral	40	16.6
	Important	81	33.6
	Very Important	104	43.2
Salary			
	Very unimportant	15	6.3
	Unimportant	29	12.1
	Neutral	91	37.9
	Important	69	28.7
	Very Important	36	15.0
Size of Organization			
	Very unimportant	22	9.1
	Unimportant	25	10.4
	Neutral	91	37.8
	Important	74	30.7
	Very Important	29	12.0
Reputation of School			
	Very unimportant	12	5.0
	Unimportant	23	9.6
	Neutral	72	30.0
	Important	83	34.6
	Very Important	50	20.8
Liked Interviewer			
	Very unimportant	12	5.0
	Unimportant	19	8.0
	Neutral	61	25.6
	Important	93	39.1
	Very Important	53	22.3

Table 26. Frequency distribution of job provisions

Factor	Value Label	Frequency	Valid %
Leadership			
Challenge	Never	2	0.8
	Seldom	8	3.3
	Some of the time	29	11.9
	Most of the time	79	32.4
	All of the time	126	51.6
Responsibility	Never	0	0.0
	Seldom	3	1.2
	Some of the time	16	6.6
	Most of the time	65	26.6
	All of the time	160	65.6
Variety in Work	Never	2	0.8
	Seldom	11	4.5
	Some of the time	55	22.6
	Most of the time	106	43.6
	All of the time	69	28.4
Opportunitiy to exercise leadership	Never	7	2.9
	Seldom	13	5.3
	Some of the time	60	24.7
	Most of the time	92	37.9
	All of the time	71	29.2
Adventure	Never	21	8.6
	Seldom	50	20.5
	Some of the time	74	30.3
	Most of the time	60	24.6
	All of the time	39	16.0
Control over what others do	Never	9	3.7
	Seldom	48	19.8
	Some of the time	90	37.0
	Most of the time	72	29.6
	All of the time	24	9.9

Table 26. Continued

Factor	Value Label	Frequency	Valid %
Economics			
Opportunity to earn great deal of money	Never	64	26.2
	Seldom	93	38.1
	Some of the time	61	25.0
	Most of the time	19	7.8
	All of the time	7	2.9
Opportunity for advancement	Never	47	19.3
	Seldom	93	38.3
	Some of the time	68	29.0
	Most of the time	24	9.9
	All of the time	11	4.5
Social status and prestige	Never	16	6.6
	Seldom	63	26.0
	Some of the time	110	45.5
	Most of the time	43	17.8
	All of the time	10	4.1
Opportunity for relatively stable and secure future	Never	13	5.3
	Seldom	23	9.4
	Some of the time	71	29.1
	Most of the time	87	35.7
	All of the time	50	20.5
Fringe benefits	Never	18	7.4
	Seldom	23	9.4
	Some of the time	54	22.1
	Most of the time	83	34.0
	All of the time	66	27.0

Table 26. Continued

Factor	Value Label	Frequency	Valid %
Empowerment			
Opportunity to be creative and original	Never	0	0.0
	Seldom	9	3.7
	Some of the time	28	11.5
	Most of the time	101	41.4
	All of the time	106	43.4
Opportunity to use special abilities or aptitudes	Never	0	0.0
	Seldom	7	2.9
	Some of the time	32	13.1
	Most of the time	101	41.4
	All of the time	104	42.6
Control over what I do	Never	1	0.4
	Seldom	10	4.1
	Some of the time	25	10.2
	Most of the time	94	38.5
	All of the time	114	46.7
Relative freedom from supervisor	Never	6	2.5
	Seldom	22	9.0
	Some of the time	71	29.1
	Most of the time	110	45.1
	All of the time	35	14.3

Table 26. Continued

Factor	Value Label	Frequency	Valid %
Humanistic Qualities			
Opportunity to help and serve others	Never	0	0.0
	Seldom	2	0.8
	Some of the time	16	6.6
	Most of the time	84	34.4
	All of the time	172	58.2
Opportunity to effect social change	Never	7	2.9
	Seldom	42	20.2
	Some of the time	109	45.0
	Most of the time	63	26.0
	All of the time	21	8.7
Opportunity to work with people rather than things	Never	0	0.0
	Seldom	2	0.8
	Some of the time	11	4.5
	Most of the time	64	26.4
	All of the time	165	68.2

Table 27. Frequency distribution of working environment satisfaction

Factor	Value Label	Frequency	Valid %
Extrinsic			
Salary	Very dissatisfied	42	17.8
	Dissatisfied	68	28.8
	Neutral	52	22.0
	Satisfied	67	28.4
	Very satisfied	7	3.0
General working conditions	Very dissatisfied	5	2.1
	Dissatisfied	21	8.8
	Neutral	52	21.8
	Satisfied	110	46.2
	Very satisfied	50	21.0
Job benefits	Very dissatisfied	14	6.0
	Dissatisfied	29	12.4
	Neutral	55	23.6
	Satisfied	87	37.3
	Very satisfied	48	20.6
Amount of administrative support received	Very dissatisfied	18	7.6
	Dissatisfied	38	16.0
	Neutral	41	17.3
	Satisfied	81	34.2
	Very satisfied	59	24.9
Extent of involvement in decision making	Very dissatisfied	9	3.8
	Dissatisfied	27	11.4
	Neutral	51	21.5
	Satisfied	102	4.30
	Very satisfied	48	20.3

Table 27. Continued

Factor	Value Label	Frequency	Valid %
Opportunity for advancement	Very dissatisfied	24	10.9
	Dissatisfied	52	23.6
	Neutral	81	36.8
	Satisfied	52	23.6
	Very satisfied	11	5.0
Job responsibilities			
	Very dissatisfied	6	2.5
	Dissatisfied	11	4.6
	Neutral	33	13.9
	Satisfied	141	59.5
	Very satisfied	46	19.4
Extent to which job challenged and provided for profesional growth	Very dissatisfied	6	2.5
	Dissatisfied	15	6.3
	Neutral	36	15.1
	Satisfied	100	42.0
	Very satisfied	81	34.0
Intrinsic			
Level of parental involvement	Very dissatisfied	14	6.1
	Dissatisfied	43	18.9
	Neutral	57	25.0
	Satisfied	85	37.3
	Very satisfied	29	12.7
Community support for education	Very dissatisfied	22	9.3
	Dissatisfied	52	21.9
	Neutral	57	24.1
	Satisfied	77	32.5
	Very satisfied	29	12.2

Table 27. Continued

Factor	Value Label	Frequency	Valid %
Relationship with students	Very dissatisfied	2	0.8
	Dissatisfied	5	2.1
	Neutral	8	3.4
	Satisfied	76	31.9
	Very satisfied	147	61.8
Size of community in which employed	Very dissatisfied	9	3.8
	Dissatisfied	23	9.7
	Neutral	30	12.7
	Satisfied	104	43.9
	Very satisfied	71	30.0
Evaluation			
Method of job evaluation	Very dissatisfied	14	6.2
	Dissatisfied	38	16.8
	Neutral	60	26.5
	Satisfied	88	38.9
	Very satisfied	26	11.5
Frequency of job evaluation	Very dissatisfied	13	5.7
	Dissatisfied	38	16.7
	Neutral	58	25.4
	Satisfied	94	41.2
	Very satisfied	25	11.0

Table 28. Frequency distribution of teaching performance

Factor	Value	Frequency	Valid %
Demonstrating knowledge of subject matter	1	0	0.0
	2	0	0.0
	3	0	0.0
	4	0	0.0
	5	2	0.8
	6	9	3.8
	7	29	12.3
	8	60	25.4
	9	91	38.6
	10	45	19.1
Monitoring and evaluating student progress and understanding	1	0	0.0
	2	0	0.0
	3	0	0.0
	4	3	1.3
	5	6	2.5
	6	21	8.9
	7	45	19.1
	8	74	31.4
	9	63	26.7
	10	24	10.2
Providing clear, concise explanations and examples	1	0	0.0
	2	0	0.0
	3	0	0.0
	4	2	0.9
	5	9	3.8
	6	17	7.2
	7	32	13.6
	8	74	31.5
	9	67	28.5
	10	34	14.5

Table 28. Continued

Factor	Value	Frequency	Valid %
Demonstrating effective planning and organizational skills	1	0	0.0
	2	0	0.0
	3	0	0.0
	4	1	0.4
	5	6	2.4
	6	13	5.6
	7	31	13.2
	8	54	23.1
	9	66	28.2
	10	63	26.9
Using evaluation activities appropriately	1	0	0.0
	2	0	0.0
	3	1	0.4
	4	4	1.7
	5	15	6.4
	6	15	6.4
	7	44	18.8
	8	69	29.5
	9	66	28.2
	10	20	8.5
Implementing the lesson plans effectively	1	1	0.4
	2	0	0.0
	3	2	0.8
	4	1	0.4
	5	9	3.8
	6	19	8.1
	7	40	16.9
	8	66	28.0
	9	68	28.8
	10	30	12.2

Table 29. Frequency distribution of teaching efficacy

Factor	Value	Frequency	Valid %
Providing setting conducive to learning	1	0	0.0
	2	1	0.4
	3	2	0.8
	4	1	0.4
	5	7	3.0
	6	11	4.7
	7	34	14.7
	8	86	36.4
	9	64	27.1
	10	33	14.0
Motivating students	1	0	0.0
	2	1	0.4
	3	2	0.8
	4	5	2.1
	5	6	2.5
	6	12	5.1
	7	53	22.5
	8	69	29.2
	9	49	20.8
	10	39	16.5
Communicating effectively with students	1	0	0.0
	2	1	0.4
	3	0	0.0
	4	1	0.4
	5	2	0.8
	6	6	2.5
	7	19	8.1
	8	54	22.9
	9	84	35.6
	10	69	29.2

Table 29. Continued

Factor	Value	Frequency	Valid %
Exhibiting positive self-concept	1	1	0.4
	2	0	0.0
	3	0	0.0
	4	0	0.0
	5	6	2.5
	6	6	2.5
	7	17	7.2
	8	62	26.3
	9	70	29.7
	10	74	31.4
Maintaining high expectations for student achievement	1	0	0.0
	2	1	0.4
	3	1	0.4
	4	0	0.0
	5	8	3.4
	6	3	1.3
	7	27	11.5
	8	48	20.4
	9	74	31.5
	10	73	31.1
Incorporating effective questioning techniques	1	0	0.0
	2	1	0.4
	3	1	0.4
	4	4	1.6
	5	13	5.6
	6	25	10.7
	7	31	13.3
	8	70	30.0
	9	57	24.5
	10	31	13.3

Table 29. Continued

Factor	Value	Frequency	Valid %
Maintaining high standards for behavior	1	0	0.0
	2	0	0.0
	3	1	0.4
	4	1	0.4
	5	4	1.7
	6	8	3.4
	7	27	11.5
	8	42	17.9
	9	82	35.0
	10	69	29.5

Table 30. Frequency distribution of commitment orientation

Factor	Measurements	Frequency	Valid %
Satisfaction with teaching as a career	Very dissatisfied	4	1.7
	Dissatisfied	23	9.7
	Neutral	40	16.8
	Satisfied	106	44.5
	Very satisfied	65	27.3
	Values	**Frequency**	**Valid %**
Satisfaction with teaching	1	1	0.4
	2	4	1.7
	3	4	1.7
	4	10	4.2
	5	19	8.0
	6	17	7.1
	7	40	16.8
	8	74	31.1
	9	49	20.6
	10	20	8.4