TEACHER-PERCEIVED AUTONOMY: A CONSTRUCT VALIDATION
OF THE TEACHER AUTONOMY SCALE

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ABSTRACT

TEACHER-PERCEIVED AUTONOMY: A CONSTRUCT VALIDATION OF THE
TEACHER AUTONOMY SCALE

William Edward Moomaw

Although a link has been demonstrated between teacher autonomy and teacher motivation, job satisfaction, stress (burnout), professionalism, and empowerment, identifying the underlying theoretical dimensions of teacher autonomy itself has met with varied results. The purpose of this study was to verify an existing 2-factor structure of the Teacher Autonomy Scale (TAS) derived from a prior study; the data were analyzed using confirmatory factor analysis (LISREL). The study was conducted in 3 Florida panhandle counties with teachers from elementary, middle, and high schools from each county surveyed. The replication study of the TAS supported the original factors of general teaching autonomy and curriculum autonomy. Internal consistency reliability also improved ($r = .83$).
CHAPTER I
INTRODUCTION

A common thread that appears when one researches teacher motivation, teacher empowerment, and teacher stress and burnout is teacher autonomy. Like the constructs of teacher motivation, teacher empowerment, teacher stress, and teacher burnout, attempts to dissect teacher autonomy and identify the underlying theoretical dimensions have met with varied results and conclusions. Difficulties in developing an adequate concept of teacher autonomy have resulted in problems developing appropriate measures of teacher autonomy. Unlike the concept of ability, teacher autonomy is a difficult concept to operationalize. Nevertheless, government officials, school board members, and principals must recognize and meet the need for teacher autonomy if they wish to motivate and empower teachers, minimize teacher stress, and prevent teacher burnout.

Every management text includes at least one section, if not a chapter, on motivation. While not as prolific as management texts, numerous books, articles, and dissertations have been written on teacher motivation. One thing most of these writings have in common is the need teachers and workers in general have for autonomy and the assertion that autonomy is an innate human need (Deci & Ryan, 1985; Erpelding, 1999; Jones, 2000; Wilson, 1993).
Many experts in the field of educational reform report that empowering teachers is an appropriate place to begin in solving the problems of today’s schools (Melenyzer, 1990; Short, 1994). Recognizing teaching as a profession and developing professional teachers has also been set forth as a possible solution. If we are to empower teachers and exalt them as professionals, then, like other professionals, teachers must have the freedom to prescribe the best treatment for their students as doctors or lawyers do for their clients. This freedom is teacher autonomy and is not restricted to the classroom but also must include decisions that impact the classrooms such as (a) school structure and organization, (b) disciplinary procedures, (c) curriculum content, (d) academic standards, (e) staffing, and (f) fiscal policy.

For this dissertation, I replicated a validation study of the Teacher Autonomy Scale (TAS) which attempted to identify elements that constitute the psychological construct of teacher autonomy. The study was based primarily upon results of the teacher autonomy survey administered by Pearson and Hall (1993) to a random sample of all the public school teachers in the Pasco County School District in Florida. They first administered a 35-item autonomy instrument to 74 teachers across all grade levels. They refined their instrument to a 20-item scale and collected data from 370 teachers in a second study. “The results yielded two factors that were internally consistent: general autonomy and curriculum autonomy” (Pearson & Hall, p. 1). The authors concluded that their study also “provided solid evidence of the teaching autonomy construct” (Pearson & Hall, p. 1).
Purpose of the Study

The study’s purpose was two-fold. First, the study endeavored to validate a scale that measures perceptions of teacher autonomy. Two subscales, general autonomy and curricular autonomy, were yielded from a prior exploratory factor analysis and the intent of this study was to determine if the survey replicated a stable factor structure. Second, causal comparisons were conducted of teacher autonomy and other demographic data to determine cultural factors affecting teacher perceptions of their autonomy. The results of the study were provided to the applicable county school board for their use to determine teacher autonomy, motivation, and job satisfaction of district teachers.

Research Questions

1. Does confirmatory factor analysis of the Teacher Autonomy Scale continue to support general autonomy and curricular autonomy as the major subscales?
2. What relationships exist between the demographic characteristics and teacher autonomy as measured by the Teacher Autonomy Scale?

Significance of the Study

Previous research in teacher autonomy reported in the January/February 1993 issue of the *Journal of Educational Research* by Pearson and Hall is replicated and extended in this survey. The research of Pearson and Hall is extended by reevaluating the findings of their initial construct validation of the TAS by examining the validity of their research findings across a different sample.
Since autonomy is one facet of teacher motivation (Khmelkov, 2000; Losos, 2000; White, 1992), an analysis of motivational factors on teacher job satisfaction and dissatisfaction is essential. The results of a study by the National Center for Education Statistics (Perie & Baker, 1997) and another by Hall, Villeme, and Phillippy (1989) have shown that the degree of autonomy perceived by teachers is indicative of current job satisfaction.

Job dissatisfaction leads to stress and ultimately to burnout if allowed to continue unabated. Teachers experience burnout as a gradual erosion of their spirit and zest as a result of the daily struggles that are typical of everyday work: too many pressures, conflicts, demands, loss of autonomy, and too few emotional rewards, acknowledgments, and successes. Stress, in and of itself, does not cause burnout. Most teachers flourish in the teaching profession despite the intense stress if they feel valued and appreciated and believe their work has significance. They burn out when they come to believe (a) their efforts have no meaning, (b) they have little or no control over their environment, and (c) stress continuously outweighs the support and rewards received (Brown, 1996). A research report by Davis and Wilson (2000) on principals’ efforts to empower teachers revealed that teacher motivation is related to both job satisfaction ($r = .56, p < .01$) and job stress ($r = -.56, p < .01$). The authors further interpreted these results to mean that the more intrinsically motivated the teachers, the more satisfied the teachers were in their jobs, and the less stress they experienced.

Part of the findings on teachers in A Nation at Risk (National Commission on Excellence in Education, 1983) was that the professional working life of teachers is, on
the whole, unacceptable. This finding started a long-standing argument on teaching as a profession. Whether one agrees or disagrees that teaching is a profession, there is little argument that autonomy is a key element of any true profession (Blasé & Kirby, 2000; Ingersoll, 1997; Ingersoll & Alsalam, 1997; Khmelkov, 2000).

Teacher empowerment is another panacea that many educational reformers consider essential in school restructuring and for optimum teacher development (Fay, 1990; Klecker, 1998). Short and Rinehart (1992) and Klecker and Loadman (1996b) measured teacher empowerment and empirically derived that autonomy was one dimension of teacher empowerment. Yet empowered teachers are not generally found in American public schools as they are structured today (Corwin & Borman, 1998; Hanson, 1991). In a survey conducted by the National Center for Educational Statistics of the U.S. Department of Education, a nationally representative sample of staff members were asked to rate their influence on a variety of classroom and school-wide issues (Shen, 1998). Teachers responded to the survey that they perceived their own influence to have remained stable over the past few years. They perceived their influence to be primarily confined to the classroom on issues such as selection of textbook and teaching strategies. Perception of autonomy has also been found to be related to factors within the work environment and teacher attitudes (Erpelding, 1999; Pearson & Hall, 1993). Hughes (1975), Sayles and Strauss (1986), and Willner (1990) point out that all teachers do not seek autonomy with equal tenacity.

Natale (1993) reported that although teachers have various reasons for leaving the teaching profession, they most often leave the classroom because of the lack of professionalism, lack of recognition, or lack of autonomy afforded them. Teacher
autonomy, or the lack thereof, seems to be a critical component in the motivation of teachers to stay or leave the teaching profession and, therefore, should be explored in more detail before decisions affecting the autonomy of teachers in the classroom are implemented.

Definition of Terms

*Autonomy.* Autonomy is “having a sense of one’s own identity and an ability to act independently and to exert some control over one’s environment, including a sense of task mastery, internal locus of control, and self-efficacy” (Benard, 1995, p. 1).

*Burnout.* Burnout is “a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficiency” (Maslach, Schaufeli, & Leiter, 2001, p. 397).

*Construct.* A construct is some postulated attribute of people, assumed to be reflected in test performance (Cronbach, 1971).

*Empowered schools.* Empowered schools are “organizations that create opportunities for competence to be developed and displayed” (Short, 1994, p. 488).

*Empowerment.* Empowerment is “a joining of personal competencies and abilities to environments that provide opportunities for choice and autonomy in demonstrating those competencies” (Rappaport, 1987, p. 122).

*Job satisfaction.* Job satisfaction is “any combination of psychological and environmental circumstances that causes a person to say, ‘I am satisfied with my job’” (Rinehart, 1994, p. 572).
**Motivation.** Motivation is “an internal concept based on a person’s needs and the fulfillment of those needs” (Benton, 1995, p. 125).

**Teacher autonomy.** Teacher autonomy is “the independence teachers maintain in exercising discretion within their classrooms to make instructional decisions” (Street, 1988, p. 4).

**Teacher stress.** Teacher stress is “the experience by teachers of unpleasant emotions such as anger, tension, frustration, anxiety, depression, and nervousness, resulting from aspects of their work as teachers” (Kyriacou, 1989, p. 27).

**Validity.** Validity refers to “the appropriateness, meaningfulness, and usefulness of the specific inferences made from test scores” (Standards for Educational and Psychological Testing, 1985, p. 9).

**Delimitations of the Study**

Survey research was used as the research methodology for data collection in this study. While random selection from the entire Escambia, Santa Rosa, and Okaloosa School Districts was utilized to select those teachers surveyed, those teachers that responded were volunteers. Responses from volunteers often vary from those that chose not to volunteer. Gall, Borg, and Gall (1996) stated that volunteer subjects are likely to be a biased sample of the target population. They continued by listing research conclusions that indicate volunteer responses may differ from nonvolunteer responses. These conclusions included (a) volunteers were more motivated by the topic to complete the questionnaires, (b) volunteers understood the importance of the research and were willing
to take the time to assist in the data collection process, and (c) volunteers were more self-disclosing and willing to relate information requested in the questionnaires (Gall et al.).

Another limiting factor is that the survey is a self-appraisal of teacher autonomy. It cannot be assured that all teachers interpreted the questions the same, or that some teachers did not give what they believed to be the politically correct or school answer. The anonymity of the survey, however, should have reduced the likelihood of this possibility.

Summary

The study was conducted to determine the ability of the TAS to identify the elements that constitute the psychological construct of teacher autonomy. In chapter 1, an introduction to the study provided an overview, and the research questions to be answered and significance of the study were set forth. The delimitations of the study and some term definitions specific to the study were briefly stated. A review of the literature is provided in chapter 2 related to (a) motivation, (b) sense of teacher autonomy, (c) school accountability and autonomy, (d) site-based school management and autonomy, and (e) the impact of increased school and teacher accountability on teacher autonomy. The review of the literature contained in chapter 2 provides the theoretical foundation upon which the study is based. The research methodology and procedures used to conduct the research leading to conclusions regarding the hypotheses are described in chapter 3. The methodology, the sample, the survey, data collection procedures, and treatment of the data are also defined and outlined in chapter 3. The results of the questionnaires administered to the sample population are reported in chapter 4. The
purpose and implications of the study are summarized in chapter 5. Significant relationships among the variables are delineated in the study and provide implications about the importance of a sense of autonomy and its relationship to school and teacher accountability. Recommendations for future research on teacher autonomy are found at the conclusion of chapter 5.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

A large body of literature exists that links teacher autonomy as a significant variable to factors such as (a) teacher stress and burnout, (b) teacher professionalism, (c) teacher job satisfaction, and (d) teacher empowerment (Brunetti, 2001; Kim & Loadman, 1994; Klecker & Loadman, 1996a, 1996b; Ulriksen, 1996). Studies directly pertaining to teacher autonomy, however, are few in number. The concept of autonomy in general and, then, as it relates to teachers is examined in this chapter. Next, the literature relating to (a) teacher stress and burnout, (b) professionalism, (c) empowerment, (d) job satisfaction, (e) school climate, and (f) intrinsic and extrinsic motivation to the concept of teacher autonomy are reviewed. The chapter concludes with a discussion of construct validation.

Autonomy

A review of the literature on teacher autonomy reveals no consensus on the definition of autonomy. In the literature reviewed for this study, the terms autonomy, independence, and control were frequently interchangeably used. According to Merriam-Webster's Collegiate Dictionary (2002), autonomy is “the quality of being self-governing” (p. 78). Sacks and Eisenstein (1976) define autonomy as “self-rule,” or, more
broadly, “self-determination” (p. 7), and Piaget's interpretation of autonomy is “ego-directed behavior, free from arbitrary outer pressures or from irrational inner pressures” (as cited in Peck & Havighurst, 1960, p. 17). Other researchers have defined autonomy in terms of its relationship to organizational roles or work (Blauner, 1964; Katz, 1968; Wolf & Fligstein, 1978).

The word autonomy is derived from the Greek root words *autos* (self) and *nomon* (rule; Merriam-Webster's Collegiate Dictionary, 2002). In Greek history autonomia was present “when citizens were governed by laws of their own making, rather than by laws or force of a foreign or conquering power” (Rosenbaum, 1986, p. 109). Batey and Lewis (1982), Gilligan (1982), and Wolff (1970) identify dual components of autonomy: perceptual and behavioral. The freedom to make discretionary and binding decisions consistent with one's ethical, moral, and legal scope is considered perceived autonomy, and the freedom to act on those decisions in the contextual mode of responsibility and care for others is referred to as autonomous behavior (Gonzalez, 1989). Myers (1973) states, “it is more accurate to speak of degrees of autonomy rather than as an all or nothing entity” (p. 27). In agreement with Myers' perception of autonomy, Arkott (1968) writes, “Few individuals remain completely dependent, and almost no one achieves complete autonomy; most effect some sort of balance between the two extremes” (p. 47).

Numerous theorists have included discussions of autonomy in their descriptions of human growth and development. Freud (1925/1961) concluded that autonomy occurs at the anal stage of psychosexual development which begins in the 2nd year of life. He asserted that methods of toilet training used, and parental attitudes toward children during this stage of development, have a profound impact on later adult characteristics.
Barenboim (1981) and Erikson (1963) also recognize the importance of developing autonomy in the early years. A child's autonomy cannot develop adequately if the child's parents foster dependence (Erikson). In order for children to attain autonomy in adulthood, they must perceive from the adults in their environment that autonomous behavior is acceptable (Barenboim). Both Maslow (1954) and Loevinger (1976) include the development of autonomy in their developmental hierarchies, at the self-actualization stage and the autonomous stage, respectively. Herzberg (1968) considers individual autonomy a powerful human motivator and points out that the degree of control a worker has over his work is the degree of autonomy he possesses. McGregor (1960) notes that within the conceptual framework of theory X and theory Y, (theories that contrast opposing leadership styles), the development of autonomy among workers is a key component of the theory Y style of management and motivation. “McGregor's belief that people are able to derive satisfaction from work to which they are committed and over which they have significant control is a significant pillar in the development of the autonomy concept” (Franklin, 1988, p. 20).

A plethora of behavioral characteristics of autonomous people is outlined in the literature reviewed for this study. Arkott (1968) describes in detail his own and Maslow's (1954) observations of the characteristics of autonomous behavior. “People with strong autonomy needs avoid routines, responsibilities, and obligations. They refuse to conform; they ignore convention, disregarding the opinions and demands of others, defying authority” (Arkott, p. 46). Autonomous people are “self-constrained and not easily upset by environmental adversities” (Arkott, p. 46). Arkott points out that autonomous people are dependent on their environments for the satisfaction of only the most basic of needs.
With these basic needs met, autonomous people go about the business of developing themselves to their fullest potential. Arkott concludes,

The autonomous man is free to conform or not as he sees fit. He is under no compulsion to act in one way or another, and he stands in sharp contrast to those who must conform and to those who have no capacity to do so. (p. 46)

Referring to Maslow's (1954) perceptions of autonomy, Arkott (1968) notes that autonomous people are part of their environment, yet able to separate themselves from the environment when necessary. They can “maintain a relative serenity and happiness in the midst of circumstances that would drive other people to suicide” (Arkott, p. 241). Wolff (1970) asserts that an autonomous person is not subject to the will of others. “He may do what another tells him, but not because he has been told to do it. He is, therefore, in the political sense of the word, free” (Wolff, p. 14).

Much of the research conducted on autonomy is centered in work-related autonomy. Prior to the Industrial Revolution, artisans, all working on the same task within the same factory, might use varying methods and practices to accomplish their work. The ability to exercise complete autonomy over their methods was lost as industry became more and more automated (Franklin, 1988). Personal skills in these factories became obsolete. Artisans were not able to perform in the newly created monotony of routine jobs; unskilled workers subsequently replaced them. According to Blauner (1964), these methods served to alienate workers from their work since their need for autonomy was ignored. He points out, “Specialization becomes so finite that the worker does not identify with the goals of the organization” (Blauner, p. 22). Wolf and Fligstein (1978) support Blauner's views and assert, “The amount of freedom one has in his work
setting (autonomy) has decreased for that segment of the labor force for whom routinization of tasks has increased” (p. 6).

Blauner (1964) and other researchers describe the attributes of autonomy in terms of the degree of control workers have over their work. Control over the pace of work, freedom from pressure, and the ability to control the quantity and quality of production are the essence of work-related autonomy. “Autonomy needs refer to the authority connected with the manager's position and the opportunity for independent thought and action” (Huneryager & Heckman, 1967, p. 204).

Teacher Autonomy

Work autonomy, as it relates to teachers, has been described since colonial times. The passing of laws in colonial New England in the middle 1600s requiring townships to maintain educational establishments transferred the responsibility of education from the family to the community (Franklin, 1988). In its new role, the community had to select a teacher who would be entrusted with educating its youth. Once under contract, however, the teachers “performed their schoolhouse duties single-handedly and their performance was monitored by periodic visits to the school by the lay board” (Elsbree, 1939, p. 71). In Elsbree's descriptions of early teaching, autonomy for teachers is evident:

The teacher was perhaps more nearly his own boss at this time (colonial period) than at any other subsequent period. There was little constraint on the teacher's authority and use of physical force, and since the schoolhouse was physically separated from the community, the teacher had considerable privacy in conducting his day-to-day work. (p. 71)
Although the advent of curriculum and other state requirements in the early 20th century somewhat limited the autonomy of teachers, teaching, for the most part, has retained many of the characteristics of the colonial period. Teachers can still, in many of our country's schools, “go into the classroom, close the door, and effectively recreate the one-room schoolhouse” (Franklin, 1988, p. 10).

The definition of teacher autonomy becomes more ambiguous as one reviews the literature on the subject. What seems like autonomy to one teacher may seem like isolation to another. One teacher may view autonomy as a means to gain substantial freedom from interference or supervision; another may view it as the freedom to develop collegial relationships and accomplish tasks that extend beyond the classroom. Some teachers thrive on autonomy, while others perceive it as a means for principals to avoid their duties (Fraser & Sorenson, 1992). Sacks and Eisenstein (1976) quote a teacher who was asked to define teacher autonomy as saying,

Autonomy for me is believing in my own ability to do what I want to do, often taking productive, creative steps toward fulfilling my own goals. Autonomy for me is a personal thing, an internal thing, feeling that I have power. (p. 7)

Lortie (1969), on the other hand, distinguishes between power (the ability to establish one's own goals) and autonomy (the freedom to choose among selected goals). Throughout the literature related to teachers and autonomy, however, there is considerable evidence to support the fact that the concept of teacher autonomy has changed considerably over the years and continues to evolve.

Willner (1990) identifies an older concept of teacher autonomy, based on independence through isolationism and alienation, and a newer concept of teacher
autonomy, based on collaborative decision making and the freedom to make prescriptive professional choices concerning the services rendered to students. Other studies concur with Willner's notion of a new sense of teacher autonomy. “Alienation is not autonomy” (Franklin, 1988, p. 13). “To be isolated in a classroom without collegial interaction or meaningful feedback is not the intended spirit of autonomy” (Fraser & Sorenson, 1992, p. 40). For teachers to realize a new sense of professional autonomy, traditional bureaucratic governance models can no longer exist. Teachers must have authority in the substance of school (Fay, 1990).

Easterbrook (1968) describes autonomous people as people who accept responsibility for their own fate and tend to have a high degree of “self-reliance, independence of judgment, self-expression, and a high evaluation of personal autonomy” (p. 101). This description can perhaps be applied to autonomous teachers, as well as generally to autonomous individuals. Franklin (1988), referring to the work of Hanson (1991), reports that teacher autonomy over the instructional process is manifested in the following ways:

1. Teachers feel that they are qualified authorities in the instructional process because they have considerable expertise in specialized fields.

2. Teachers feel that they have a right to organize the learning process according to their own choosing.

3. The network of impersonal school rules stops at the classroom door. Teachers formulate their own, personalized, flexible rules, which allow them to operate within their classrooms as they see fit. (p. 24)
Specifically addressing teacher autonomy and its relation to creative teaching, Eye and Netzer (1965) state, “The matter of creativity becomes an issue if the supervisor maintains too great a proportion of direction and control. Some freedom or autonomy must be granted to the teacher if creativity is to characterize the teacher's work” (p. 210). Eye and Netzer, Easterbrook (1968), and Sayles and Strauss (1986) relate creativity, imagination, and originality to a sense of autonomy. Easterbrook found that nonautonomous people tend to “display little originality in their thinking and little interest in originality” (p. 101). Sayles and Strauss report,

Initiative and imagination are essential to any sense of autonomy; yet too often management fails to use the creative abilities of employees. As a consequence, they display their initiative and imagination in forms of which management disapproves. . . . Often, the creative individual is considered a troublemaker. (p. 16)

Nor do researchers agree on the value teachers place on their autonomy. Hughes (1975), Sayles and Strauss (1986), and Willner (1990) point out that all teachers do not seek autonomy with equal tenacity. “Some teachers do not want the autonomy which everyone is wishing to give them—they are in need of guidance from a headmaster or inspector” (Hughes, p. 309). Willner concludes that even in schools where shared decision making is encouraged, there is low participation. Teachers with certain personality types prefer not making decisions on critical issues, but would rather be told what to do.
Teacher Autonomy as a Significant Variable

Teacher Stress and Burnout

According to Kyriacou (1989),

Teacher stress refers to the experience by teachers of unpleasant emotions such as anger, tension, frustration, anxiety, depression, and nervousness, resulting from aspects of their work as teachers. . . . Teacher burnout refers to a state of mental, emotional and attitudinal exhaustion in teachers which results from a prolonged experience of stress. (p. 27)

Maslach (1999), the renowned expert on burnout, declares that stress and burnout are two distinct constructs; however, for purposes of this study they were considered degrees of the same construct. Burnout was first investigated in the 1970s as a crisis of overextended and disillusioned service workers. The influence of stress and subsequent potential for burnout was soon shown to be “an issue of particular concern for all people-orientated occupations in which (a) the relationship between providers and recipients is central to the work and (b) the provision of education, service, or treatment can be a highly emotional experience” (Maslach, p. 211). Constraints on individual autonomy and control over one’s work and work environment were first documented in 1966 by Lazarus’ book Psychological Stress and the Coping Process. Subsequently, several other studies have found that constraints on autonomy such as perceived lack of control and sense of powerlessness are related to tension, frustration, and anxiety among teachers (Bacharach, Bauer, & Conley, 1986; Blasé & Matthews, 1984; Cedoline, 1982; Dworkin, Haney, Dworkin, & Telschow, 1990; Evers, 1987; Lortie, 1975; Natale, 1993; Yee,

Teacher Professionalism

Some researchers have sought to determine how autonomy is incorporated into professionalism. Corwin (1965) suggests that the degree of presence of such traits as (a) standards for admission to the vocation, (b) the advances made in prestige and economic standing, and (c) the autonomy the profession reaches in determining its own work may determine the degree to which that vocation is indeed a profession. Katz (1968) states, “The greater the degree of specialized knowledge and skills required of the occupant of a position, the greater the degree of autonomy that accrues to the position” (p. 21). In Katz' view, professionals would be only those individuals who have a great degree of specialized knowledge. Myers (1973) concurs, “The professional gains autonomy largely because of his extensive knowledge in a specific area” (p. 28).

From *A Nation at Risk* (National Commission on Excellence in Education, 1983) came seven different recommendations intended to improve the preparation of teachers or to make teaching a more rewarding and respected profession. Teacher professionalism—the movement to upgrade the status, training, and working conditions of teachers—has received a great deal of interest ever since the report (Ingersoll & Alsalam, 1997). While the biggest debate has been on whether teaching is a true profession, research has disclosed a number of characteristics that would distinguish teaching as a profession. One of these traditional characteristics of a profession is worker authority or autonomy (Blasé & Kirby, 2000; Ingersoll & Alsalam; Khmelkov, 2000). Professional autonomy is
required. Teachers and principals must have the authority to make key decisions about the services they render. Firestone and Bader (1992) point out that top-down imposition of change is counter to the development of professionalism.

Ingersoll (1997), in a National Center for Educational Statistics (NCES) statistical analysis report entitled *The Status of Teaching as a Profession: 1990-91*, included teacher authority as one of the traditional characteristics used to distinguish professionals from other kinds of occupations. Authority was defined as “the extent to which teachers influence school decisions concerned with key educational issues” (p. x). While principals felt they were influential in decisions concerning curriculum, discipline, and hiring practices, teachers appeared to have much more limited authority. The percentage of teachers who felt they were influential in school decisions ranged from a low of just 6% in Louisiana to a high of 64% in Wyoming with the nation’s average being 30%. The study concluded that there were large variations in the degree of faculty decision influence most noticeably between high-poverty public schools and more affluent communities.

Another NCES report entitled *Teacher Professionalization and Teacher Commitment: A Multilevel Analysis* also looked at authority but broadened the definition to include “the degree of individual autonomy exercised by teachers over planning and teaching within the classroom” (Ingersoll & Alsalam, 1997, p. vii). The emphasis to address both aspects of teacher authority (Ingersoll & Alsalam) are summarized in the following passage:

Advocates of increases in faculty influence and increases in teacher autonomy argue that teachers will not only make better informed decisions about education
issues than district or state officials, but that top-down decision making often fails precisely because it lacks the support of those who are responsible for the implementation and success of the decision. (p. 7)

The report looked at a number of variables in three distinct characteristics: (a) teacher, (b) school, and (c) professional. Teacher autonomy was measured on a Likert-type 6-point scale and measured teacher control in the classroom in six areas of planning and teaching: (a) course texts, (b) course content, (c) teaching techniques, (d) evaluating students, (e) disciplining students, and (f) determining homework. Both types of teacher authority (planning and teaching) were positively associated, \( p < .05 \), with teacher commitment and teacher professionalization (Ingersoll & Alsalam, 1997.)

Khmelkov (2000), in his research on professionalism and novice teachers, established task autonomy and work control as one of the major dependent variables. An autonomy in instruction scale with a Cronbach alpha coefficient of .78 was developed to measure task autonomy and work control in several aspects of teaching. Teacher autonomy was one of three factors found to be significant in promoting novice teachers’ sense of autonomy. Khmelkov concludes that the only organizational factor consistently associated with novice teachers’ use of professional practices was autonomy. Another study found that one of the strongest determinants of what teachers actually did in their classrooms was based on their personal standards and their expectations of themselves as professionals (Brunetti, 2001). The relationship between autonomy and professionalism appears to be a two-way street as Blasé and Blasé (1998) state that their research indicates, “extending autonomy is based on a principal’s confidence and trust in teachers’ professional judgment” (p. 140).
Teacher Empowerment

Numerous educational reformers indicate that teacher empowerment is essential to school restructuring, yet empowered teachers are not generally found in American public schools as they are structured today. This fact continues to hold true despite research reflecting the importance of teacher empowerment and autonomy (Fay, 1990; Klecker, 1998). “Teachers ordinarily have autonomy—that is, independence from external control—in their classroom conduct, although the amount and scope of their autonomy varies in different schools” (Katz, 1968, p. 14). Hughes (1975) contends that the principal usually has little control over the teacher in relation to the core act of teaching, even though there might be considerable administrative control over crucial decision making and the establishment of goals and priorities for the school. Collaborative autonomy is easily observed in schools where teachers have the opportunity to work with administrators in making decisions pertaining to curriculum, instruction, and scheduling (Willner, 1990).

Other researchers have addressed the difficulty of appropriately implementing the degree and type of supervisory control that best allows teachers to retain their autonomy. Lortie (1969) contends that informal understandings exist in schools by which principals concentrate instructional supervision on beginning teachers, leaving more experienced teachers to do as they please. In this case, it might be generalized that experienced teachers earn their autonomy and, consequently, their freedom from close scrutiny, through years of successful teaching. Franklin (1988) studied the relationship between principal consideration and teacher autonomy and found that teachers who perceive their principals to have a high degree of consideration for others exhibit a greater degree of
teacher autonomy than those teachers who perceive their principals as autocratic, authoritarian, and less considerate. In keeping with this notion, Darling-Hammond, Wise, and Pease (1983) found in their review of the literature on teacher evaluation programs that the preservation of teacher autonomy was noted as one of the ingredients of a successful teacher evaluation program.

The appropriate level of supervision necessary for optimum teacher development has been difficult to determine. The commonly held public belief that teachers are not true professionals has added to the confusion. It is sometimes asserted that lay people have more right to interfere with teachers than with doctors or engineers because there is so little reliable pedagogical knowledge. In other words, interference is said to be justified because, practically speaking, the layman's judgment is as good as the educator's (Lieberman, 1953, p. 112).

Firestone and Bader (1992) found that evaluating teachers for promotion to higher ranks often negatively affects classroom autonomy. They quote one teacher as saying, “If a kid walks in with tadpoles, I can't teach tadpoles . . . the lesson plan says I have to teach light. If I deviate from the standard curriculum, the evaluator was sure to come in at that moment for an observation” (p. 73).

Brandt (1990) states,

In many schools across the country, teachers receive little or even no supervision if their classes seem to run smoothly and pupils or parents make few complaints. An informal truce is often struck between teachers and administrators, “If you don’t bother me, I won’t bother you.” (p. 160)
Other constraints on the development of teacher autonomy have been addressed and specified by researchers. Hanson (1991) found the following constraints on teacher autonomy to exist:

1. The state legislature, which dictates textbook lists, and in some states dictates specific curricula.
2. The court system, which controls issues such as prayer in schools and banning books.
3. The school board, which may view one teaching strategy, such as individualized instruction, as best.
4. The school administrator, who wants roles to be filled in certain ways.

(p. 26)

Corwin and Borman (1998) cite three existing dilemmas, which also serve as constraints on the development of teacher autonomy:

1. The contradiction between the subordinate status of teachers in the formal hierarchy and the wide discretion available to them in the classroom.
2. The contradiction between teachers' collective power as union members compared to teachers' power as individuals subordinate to local authority.
3. The dilemma of teachers relinquishing personal discretion over professional matters in order to achieve collective power. (p. 212)

Klecker and Loadman (1996a) used the School Participant Empowerment Scale (SPES) developed by Short and Rinehart (1992) to measure teacher empowerment in 180 restructuring schools. Short (1993) identified six empirically derived dimensions underlying the construct of teacher empowerment of which autonomy was one.
The SPES measures teacher autonomy on six dimensions: (a) decision making, (b) professional growth, (c) status, (d) self-efficacy, (e) impact, and (f) autonomy using a Likert-type 5-point scale. The Cronbach coefficient alpha reliability for the autonomy subscale was .83. Only three of the 38 items on the SPES related to the autonomy subscale and these only addressed the aspect of autonomy in scheduling. There was a statistically significant ($p < .01$) difference in the teachers’ responses to this subscale: the mean for elementary school teachers (3.41) was higher than the mean for middle school/junior high school teachers (2.87) and the mean for high school teachers (2.80). The effect size for teaching level on the autonomy in scheduling was .035, the largest effect size found by demographic variable on any of the subscales or total scale scores. (Short, p. 23)

Ingersoll (1997) addressing power, authority, and decision making in schools concludes that

Although the importance of the distribution of power in school systems has become increasingly recognized among both education researchers and policymakers, this has not resulted in the prevalence of high levels of teacher empowerment in schools. (p. 32)

Empowerment, shared governance, professional collaboration, participatory leadership, site-based management, and a variety of other descriptive words have interchangeably been used in the literature when discussing teacher autonomy. With the plethora of rhetoric supporting and encouraging principals to empower teachers and provide professional autonomy, it could be assumed teachers are experiencing a surge of influence within their profession. Shen (1998) has reported the results of a survey on
leadership conducted in the public schools every 3 years since the 1987-1988 school year.

In this survey conducted by the National Center for Educational Statistics of the U.S. Department of Education, a nationally representative sample of staff members was asked to rate their influence on a variety of classroom and school-wide issues. Teachers responded to the survey that they perceived their own influence to have remained stable over the past few years. They perceived their influence to be primarily confined to the classroom on issues such as selection of textbooks and teaching strategies. Principals, however, shared their perception that teachers have significantly more influence on school-wide issues than reported by the teachers surveyed in the study. Shen concluded, “principals appear to have the impression that the rhetoric has been translated into practice. To make the teachers' and principals' perceptions congruent is a daunting task facing us in this new era of school leadership” (p. 36).

Job Satisfaction

The degree of autonomy workers are allowed has been significantly linked to the workers' degree of job satisfaction. “Trow found that the need of autonomy, when met, would produce job satisfaction” (as cited in Applewhite, 1965, p.14). The Trow study indicates, “that the worker doing what he wants to do contributes to the satisfaction of a major need, but it is a major need only when he is ego-involved and/or his other dimensions of satisfaction are limited” (as cited in Applewhite, p.14).

Charters (1976), Franklin (1988), Gnecco (1983), and others imply that autonomy is essential in developing work satisfaction in teachers. Charters states, “Teachers value the freedom to choose the criteria and techniques used to assess student performance” (p. 221). “The major rewards in teaching are derived from control of the classroom
educational process. . . . Teacher autonomy is important as a medium through which teachers can obtain work satisfaction” (Franklin, p. 2). The majority of recent literature supports this ideology (Brunetti, 2001; Kim & Loadman, 1994; Klecker & Loadman, 1996a; Ulriksen, 1996).

A recent National Center for Education Statistics report on job satisfaction among American teachers identified “more administrative support and leadership, good student behavior, a positive school atmosphere, and teacher autonomy” as working conditions associated with higher teacher satisfaction (Perie & Baker, 1997). The report, based on a sample of over 37,000 K-12 public school teachers, disclosed that while background variables such as sex, age, and years of experience were related to teacher satisfaction, they did not explain the difference in teacher satisfaction nearly as much as did the workplace factors, such as administrative support, parental involvement, and teacher control over classroom procedures. Teacher autonomy was highly significant, $R^2 = 0.14$, explaining teacher job satisfaction as well as administrative support and leadership, $R^2 = 0.14$; better than teacher compensation, $R^2 = 0.07$; and just slightly less than student behavior and school atmosphere, $R^2 = 0.17$.

A 1992 survey by Fraser and Sorenson, which looked at teacher motivation and satisfaction with participatory management, disclosed that teachers are generally dissatisfied by the absence of feedback, autonomy, and task-related interaction. The study revealed that not all teachers were advocates of participating in school management decisions and that opportunity to participate should be based on an individual teacher’s needs.
While teachers differ in their desire to participate in school management, they are more unanimous in the desire to retain autonomy in the classroom. A study of job satisfaction among long-term high school teachers revealed that freedom and flexibility in the classroom were highly influential in their decision to remain in teaching (Brunetti, 2001).

**School Climate**

One characteristic cited in the research on effective schools is school climate. Effective schools have orderly, safe school climates that foster instructional effectiveness as measured by student achievement (Brookover & Lezotte, 1979; Edmonds, 1979; Good & Weinstein, 1986; Sergiovanni, 1995). Organizational climate has been used to describe the general feeling or atmosphere of a school by Hoy and Miskel (1996), who defined school climate as “a relatively enduring quality of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools” (p. 141). School climate can be more succinctly characterized as the personality of the school (Hoy & Miskel). Kelley (1980) defined school climate as “the prevailing or normative conditions which are relatively enduring over time and which can be used to distinguish one environment from another” (p. 2). Hoy and Clover (1986) stated, “Climate has a major impact on organizational performance because it affects the motivations of individuals” (p. 94). A positive school climate is critical to the cultivation of an effective school.
Climate is typically referred to as positive or negative; however, a school's climate can have both positive and negative aspects simultaneously (Gonder & Hymes, 1994). A positive school climate is critical to the cultivation of an effective school and results from individuals feeling valued and being active participants in the success of the school. Demonstrating the importance of school climate, Gonder and Hymes related climate to Abraham Maslow's hierarchy of needs. They stated a safe, orderly school climate fulfills the first two needs on Maslow's hierarchy that were articulated as physiological needs (i.e., food, water, air, and shelter) and safety needs (i.e., protection from danger). A positive school climate fulfills the top three needs on the hierarchy stated as social needs (i.e., belonging, love, and acceptance), self-esteem and ego needs (i.e., status and recognition), and self-fulfillment needs (i.e., creativity and self-actualization). According to the Gonder and Hymes, “The indicators of a positive school climate include respect, trust, high morale, cohesiveness, caring, academic and social growth, communication, and opportunities for participation” (p. 13).

Research emphatically supports that effective schools have a climate that is safe, orderly, and fosters instructional effectiveness as measured by student achievement (Brookover et al., 1982; Brookover & Lezotte, 1979; Edmonds, 1979; Gonder & Hymes, 1994; Good & Weinstein, 1986; Sergiovanni, 1995). Gonder and Hymes summarized the importance of school climate by stating, “the bottom line of school performance is student achievement, and research in the 1970s and 1980s found a distinct link between positive school climate and high staff productivity and student achievement” (p. 6). The aforementioned literature also defended the important role educational leaders, specifically principals, play in facilitating positive climates in schools. Principals must be
able to mold positive school climates that emphasize student achievement. DuFour and Eaker (1992) dynamically asserted that “only when such a climate exists can a principal hope to turn the attention of teachers and students to the higher goals that lead to educational excellence” (p. 73). Engineering a positive school climate is a responsibility that must be enthusiastically undertaken by the principal.

Research conducted by Charters (1974) examined work autonomy or the freedom teachers feel from external control in the organizational setting of teaching. Charters’ research revealed the teaching profession in public schools is viewed by some researchers as providing a high degree of daily autonomy that, in turn, attracts individuals who value autonomous working conditions. In contrast, he also reports that other sociological researchers of education observed teachers to be “powerless pawns who pursue their daily activities closely constrained by bureaucratic rules and guidelines in whose establishment they have no effective voice” (p. 211). Rosenholtz’ (1987) research also found that the traditional bureaucratic organization structure of schools prevents teacher autonomy and leads to teachers’ defection from the profession.

Lieberman (1988) also espoused the empowerment of teachers toward the ideal of building a community of leaders in a school. Research seems to indicate a school's culture is altered when tenured teachers begin to collaborate to solve problems related to student performance. Increased collaboration among teachers creates a more professional atmosphere that fosters shared leadership opportunities. A further review of research reaffirms that principals can create opportunities for teachers to share in the greater responsibilities of decision making and in the process of helping a school shape shared values and goals. Principals can support the collaborative activities of teachers, thereby
enhancing the teachers' perceptions of their principals as supportive and perceiving their school as a community. Lieberman summarized her assessment of teacher empowerment by stating, “Teachers and principals can hold leadership roles and, working together, they can help the school to build a professional culture” (p. 653).

Raelin (1989) explored balancing a principal's control of a school while granting teacher autonomy. He asserted, “The fundamental problem of school management is establishing a balance between controlling the building while granting teachers their professional right of autonomy” (p. 28). In examining the issue of control versus autonomy, Raelin has dissected the issue of autonomy into three distinct sections: (a) strategic autonomy, (b) administrative autonomy, and (c) operational autonomy. Strategic autonomy is defined as the vision, mission, and broad goals determined by the school board, superintendent, and central office staff. Administrative autonomy is the management of a school system's unit (i.e., the elementary school) by the principal placed in the managerial role. Operational autonomy describes the freedom teachers have to solve problems and control their work environment within organizational constraints while being accountable to the school administration. Raelin envisions increasing strategic and administrative autonomy opportunities for teachers through professional development activities, mentorships, and management of educational projects. Granting teachers their professional right of autonomy can provide opportunities to develop the learning community of the school. Hanson (1991) determined principals normally do not interfere with a teacher's turf behind his or her classroom door. The primary reason principals chose not to interfere with teachers included a reluctance to jeopardize the close, comfortable working relationship principals had built with the teachers. This
research would indicate that peaceful coexistence between principals and teachers weaves into the organization's culture.

Research conducted by Lee, Dedrick, and Smith (1991) suggested “fostering cooperative environments and allowing teachers reasonable autonomy in their classroom practices are more likely to foster the efficacy and satisfaction of teachers” (p. 205). Teachers who were able to gain a sense of control over certain elements of the school social organization increased their efficacy and satisfaction. When teachers gained control over their classroom environment, they perceived themselves as having increased efficacy. Examples of gaining control over their classroom environment included (a) determining the curriculum, (b) developing the methods to teach the curriculum, (c) selecting materials, (d) establishing the daily schedule, and (e) enforcing the classroom management system. This research showed teachers who were able to control the above mentioned conditions of their classroom learning environment felt more effective than teachers who did not have control to alter these conditions.

In schools, gaining control over the classroom environment is distinctly different from developing a school's vision and long-range goals. When each teacher is making decisions about his or her classroom environment, the sense of shared purpose and goals in a school can lead to role ambiguity (Firestone & Wilson, 1985). Effective schools must somehow strike a balance between providing teachers with opportunities to control social organization while simultaneously espousing and operating under a set of shared goals and a vision for the school. Lee et al. (1991) hypothesized in their research that “in schools with a strong communitarian organization and a shared value system, the relationship between individual classroom control and teachers' self efficacy is
attenuated” (p. 194). Research results from Firestone and Wilson's study supported the hypotheses put forward by Lee et al. and can be summarized as indicating teachers feel more effective in schools where they have control over their instructional practices, where there is a strong sense of community, and where the principal is perceived as a strong leader. These results indicated that strong principals are able to build a spirit of community and shared vision in their school while supporting and encouraging teacher autonomy in managing their classrooms. Further analysis indicated effective principals encourage the development of leadership skills in teachers within the school as a means to ultimately increase student achievement (Lee et al.). It can be seen that principals play a critical leadership role in developing a cooperative environment and opportunities for teacher autonomy within the school community.

A study by Short (1993) using the School Climate Questionnaire found some interesting results when the level of teacher empowerment that teachers perceived was related to their perceptions of school climate. The study revealed that empowerment was negatively correlated to school climate, indicating that as the teachers feel more empowered they perceived the school climate to be less positive. One of the implications that Short derived from this study was that “creating organizations where participants feel greater empowerment (teachers share decision making, greater teacher autonomy and status, etc.) may result in greater organizational conflict and lowered school climate” (p. 594).
Intrinsic and Extrinsic Motivation

The notion of intrinsic versus extrinsic factors is implicit in many theories of motivation. Intrinsic motivational factors may be likened to one's inclinations, interests, capacities, strivings, curiosity, and spontaneity (Deci & Ryan, 1991; Reeve, 1996). Even in the absence of external rewards or influences, intrinsically motivated behaviors are performed. The reward is personal enjoyment or growth. Representative of intrinsically motivated behavior are self-directed learning and autonomy.

Extrinsic motivation, in contrast, is environmentally inducted (Deci & Ryan, 1991; Reeve, 1996). People often rely on outer environmental resources to spur them into action. Things such as alarm clocks, deadlines, and making the grade are examples of extrinsic or outer motivational resources. Behaviors resulting from extrinsic motivation would not occur spontaneously; they are contingent upon external prompting or rewards.

Research has shown that use of extrinsic rewards can cause diminishing returns and may create an even larger appetite for further rewards (Deci & Ryan, 1985). A cycle is created that becomes difficult, if not impossible, to control. Perhaps most detrimental is that as extrinsic rewards are used as inducements, especially for activities that might otherwise be intrinsically satisfying, intrinsic motivation may decrease.

Studies have documented that the use of extrinsic influences in the schools has produced detrimental effects on students (Deci & Ryan, 1985, 1991). Educators have made assumptions that external rewards have greater power than intrinsic rewards to motivate behavior. An added complication to the use of external rewards with school children is that often behaviors that are extrinsically motivated look the same as those intrinsically motivated. In an investigation of this dilemma, Deci and Ryan (1985) posed
the question of what would happen to an individual's intrinsic motivation if he or she began to receive extrinsic rewards for an intrinsically motivated activity in which he or she is already engaged. Unfortunately, the findings of the study supported that an individual is less likely to repeat the activity of his or her own volition. This loss is referred to as the hidden cost of rewards by Lepper and Green (as cited in Reeve, 1996).

The hidden cost of rewards is evident among adult populations as well. Clearly, the value that school cultures have placed on external rewards is misguided and has not been successful (Hayden, 1993). Inducing behavioral change through external rewards creates a quandary when applied to adults. For example, applying merit pay systems for teachers is complex (Walker & Symons, 1997). Measuring teaching performance inevitably relates back to student performance. Influences on student learning are many, and to identify the influence of one teacher is nearly impossible. Moreover, consensus on criteria for measuring the success of teaching or learning has not been easy to develop.

Fortunately, the effects of the use of extrinsic influences to motivate are not always negative (Deci & Ryan, 1991; Reeve, 1996). Two examples illustrate some positive effects of extrinsic factors. First, if motivation for a given task is low to begin with, extrinsic factors do not pose a threat to intrinsic motivation. When almost no intrinsic motivation is present for a task, extrinsic factors act as a contingency for accomplishment of the task. Another example of positive effects from extrinsic factors is the wise use of verbal praise. If verbal praise, or feedback, is specific and connected to a goal, increased motivation is fostered.

The challenge in balancing the use of extrinsic and intrinsic influences lies in the discerning use of each. Motivation research findings for the use of extrinsic rewards run a
little counterintuitive to what many have believed is good practice (Reeve, 1996), namely using prizes and incentives to increase the odds of compliance. Yet, removing all extrinsic factors may actually inhibit motivation in certain circumstances, especially as a means-to-an-end contingency for what some may view as dull activities. A multidimensional approach is advisable, one that incorporates strategies using both intrinsic factors (autonomous and self-directed) and extrinsic factors (environmentally imposed or awarded).

Intrinsic and extrinsic motivation is one of the most extensively researched theories of teacher motivation. Researchers who posit that teachers are motivated by intrinsic factors believe that the force that impels teachers to perform comes from within. Factors include (a) the desire to help students achieve, (b) the desire to make a difference in society, (c) a sense of accomplishment when they see a student learn, and (d) other nontangible concepts. Researchers who find that teacher motivation is based on intrinsic factors encourage schools to create a climate or organizational structure that encourages these intangibles. Extrinsic motivation theory posits that external factors such as pay, nonmonetary fringe benefits, and recognition of performance motivate teachers. These researchers urge schools to evaluate their faculty as to which specific external motivators are highly valued and work to create or improve them.

A number of researchers (Ashbaugh, 1982; De Jesus, 1991; Dinham & Scott, 1996; Farrar, 1981; Firestone & Pennell, 1993; Picard, 1986; Porter, 1993; Swanson & Koonce, 1986) focus their studies on extrinsic motivations. Porter found that 80% of the teachers in her study had an orientation towards extrinsic motivation. Among those motivations rated most highly were health insurance, job security, competitive salary,
financial support for workshops and classes, and life insurance. In a related study, Picard found that most teachers placed financial considerations highest among the motivational factors. Similarly, Swanson and Koonce argue, “pay truly linked to performance generally leads to improved productivity” (p. 87). They do note, however, “past research is not convincingly supportive of incentive plans substantially influencing student achievement, teacher retention rates, or attracting quality teachers” (p. 87). Similar to Picard, Ashbaugh found a necessity for a combination of intrinsic and extrinsic rewards to truly motivate teachers. De Jesus' work concurred with Ashbaugh's research.

In opposition to these views are the works of Firestone and Pennell (1993) and Dinham and Scott (1996). The research of both pairs found that extrinsic factors were dissatisfiers rather than motivators. Firestone and Pennell researched differentiated incentive pay systems and found that they often undermined teacher commitment and pitted teachers against one another. Additionally, the requirements for many of the new types of incentive pay systems increased the teacher workload significantly and thereby diminished the program's effectiveness as well as making pay a negative motivator. They found, however, that where differentiated pay systems encouraged collaboration, they were more successful in their processes and pay had a positive impact on teacher motivation. In contrast, Farrar (1981), in a study of New York State public teachers, found that teachers and administrators concurred that pay-related incentives held the most promise for motivating teachers. However, Farrar noted that a system of differentiated pay needed to be perceived as equitable and fair. Finally, Dinham and Scott found in their study of Australian teachers and administrators that teachers who were most satisfied were motivated by intrinsic factors such as (a) student achievement, (b) positive
relationships with students and others, (c) self-growth, and (d) mastery of professional skills. At the same time, they found that dissatisfiers were predominantly extrinsic factors, usually relating to those aspects of the profession that were out of the control of teachers.

The research on the intrinsic motivation of teachers is also quite extensive. A research action brief published by the National Institute of Education (1981) found that “Intrinsic rewards are much more powerful for motivating teachers than are extrinsic rewards, such as merit pay” (p. 2). The body of research tends to support this notion. Brown (1996) found three major reasons (all intrinsic) why teachers leave: (a) the need for personal growth, (b) desire for a different philosophy of education, and (c) a lack of respect and recognition for their efforts. In contrast, in a study of teachers who remain in the profession, Sarafoglu (1997) noted as reasons the following intrinsic factors: (a) a love of learning, (b) a love of children, (c) resilience, (d) collegiality, and (e) reflectivity. Two qualitative studies (Gretzinger, 1992; Lemons, 1988) researched teacher motivation and found that student success was a top motivator for teachers. Lemons found content employment to be the highest motivator, followed by student achievement, appreciation for the profession, relationships with students, and contributions to society. The single extrinsic motivator identified was the teaching schedule. Gretzinger found that seeing students work together (team) to achieve, having the opportunity to influence young people, and the feeling of worthwhile accomplishment were the greatest intrinsic motivators—with higher salaries, reduced teaching load, and added preparation time the greatest extrinsic motivators.
While the majority of research supports the use of intrinsic rewards to motivate teachers, a 1985 study by Nero reported that both teachers and principals felt that their greatest need deficiencies were security and autonomy. The report found that while teachers gain satisfaction from working with their students and seeing them achieve success, they were most dissatisfied with noninstructional paperwork, discipline and meaningless tasks.

Sederberg and Clark (1990) examined motivation and organizational incentives for high vitality teachers and found that these types of teachers entered the profession to replicate the high level of performance that they received in their own education. They also found that, for the most part, these teachers are motivated by “an inner driving force that was difficult for them to articulate” (Sederberg & Clark, p. 8). Finally, the most compelling of motivations came from playing a significant and enriching role in the development of students. The roles teachers play in helping students grow and achieve also was found by Dinham and Scott (1996), Dilworth (1991), and Plihal (1982) to be a primary motivator.

In addition to the motivating factors found in the classroom, teachers desire other types of intrinsic support. Fox (1986) found that many teachers seek adequate and consistent feedback and desire recognition for the work done. “The principal, by extending recognition to the teacher, contributes to teacher motivation by signifying respect for the teacher” (Fox, p. 11). Fox also reported that teachers desire opportunities for continued professional growth, either through professional workshops or through increased responsibility for decision making in the school.
Construct Validation

Teacher autonomy is a psychological construct in that it describes teacher behavior or control over his or her environment. Numerous theories of teacher retention, burnout, and professionalism identify teacher autonomy as a significant variable but fail to identify the dimensions that define the construct of teacher autonomy. An examination of the pertaining literature reveals that other than the Teacher Autonomy Scale (TAS), none of the studies tap the entire teacher autonomy construct domain.

Validity is defined as the “appropriateness, meaningfulness, and usefulness of the specific inferences made from test scores” (American Psychological Association, 1985). Validation is a process of gathering evidence that an instrument measures what it purports to measure (Nunnally, 1978), and it is the inferences made from scores that are validated (Cronbach, 1971).

Empirical evidence of validity is usually gathered through criterion-related, content-related, or construct-related means. Construct validation involves interplay between construct definition, instrument development, and data collection (Shavelson & Stanton, 1975). It is the construct definition that sets limits on instrument development and data collection, and the construct must be defined within a network of relationships that locates it within a conceptual space (Loevinger, 1976).

Methods used to define a construct may be logical, correlational, experimental, or any combination of the three (Campbell & Fiske, 1959: Cronbach, 1971). The construct must first be defined, and the definition used as a blueprint for instrument development. The construct definition can only be supported through empirical evidence. Lacking such
empirical evidence, the definition must be redefined or the instrument altered. Construct validity must be investigated whenever no criterion or universe of content is accepted as entirely adequate to define the quality to be measured. Construct validity is ordinarily studied when the researcher has no definite criterion measure of the quality with which he is concerned and must use indirect measures. Here the trait or quality underlying the measurement instrument is of central importance, rather than either the instrument behavior or the scores on the criteria (Cronbach & Meehl, 1955).

Construct validation, since it involves interpretations of instrument scores, is an interplay between construct definition, instrument development, and data collection (Shavelson & Stanton, 1975). It is the construct definition that will set limits on potential measurement techniques and data interpretation. Ideally the construct should be defined within a network of associations that relate the construct to (a) observable properties of the construct—within-construct and (b) other constructs—between construct (Loevinger, 1976).

Once a construct is defined, the definition serves as a blueprint for the development of the instrument. Data are then collected on the instrument and the interpretations of this data may be thought of as hypotheses, to be repeatedly challenged by counterhypotheses (Cronbach, 1971; Cronbach & Meehl, 1955). Initial studies serve to examine the empirical and logical evidence that supports the within-construct portion of the nomological network, while later studies examine the evidence that supports the between-construct portions of the network. If the empirical evidence supports the construct definition, scores are then given construct interpretations; if not, either the instrument or the definition needs revision. If instrument revisions produce empirical
evidence that continues to be incongruent with the definition, it may be that certain aspects of the construct cannot be measured with existing techniques (Shavelson & Stanton, 1975).

The problem of construct validation becomes especially acute in the clinical field since for many of the constructs dealt with, it is not a question of finding an imperfect criterion, but of finding any criterion at all. Crocker and Algina (1986) identify four approaches to construct validation:

1. Correlation between a measure of the construct and designated variables. If two measurement instruments are presumed to measure the same construct, a correlation between them is predicted. When the variable investigated correlates highly with logically related variables and demonstrates low or negative correlations with logically unrelated variables, then the researcher has some indication of construct validation. If the obtained correlation departs from the expectation, however, there is no way to know whether the fault lays in instrument A, instrument B, or the formulation of the construct.

2. Differentiation between groups. If our understanding of a construct leads us to expect two groups to differ on the test, this expectation may be tested directly. The objective in a differential study is to show that subjects who represent distinctly different populations will score in predictably different ways on the same test.

3. Factor analysis is a statistical approach that can be used to analyze interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions (factors). The
statistical approach involving finding a way of condensing the information contained in a number of original variables into a smaller set of dimensions (factors) with a minimum loss of information. Factor analysis arranges the correlation matrix so that the items cluster together into interrelated groups. If the instrument operates as defined then the item groups represent either related (convergent) or unrelated (divergent) constructs. A matrix of intercorrelations often points out profitable ways of dividing the construct into more meaningful parts, factor analysis being a useful computational method in such studies.

4. The Multitrait-Multimethod Matrix (MTMM) is an approach to assess the construct validity of a set of measures in a study. MTMM is simply a matrix or table of correlations arranged to facilitate the interpretation of the assessment of construct validity. The MTMM assumes that you measure each of several concepts by each of several methods (e.g., a paper-and-pencil test, a direct observation, a performance measure). The MTMM is a very restrictive methodology—ideally the researcher should measure each concept by each method. The MTMM idea provided an operational methodology for assessing construct validity. In the one matrix it was possible to examine both convergent and discriminant validity simultaneously. MTMM provides a rigorous framework for assessing construct validity. Despite these advantages, MTMM has received little use for several reasons. First, in its purest form, MTMM requires that you have a fully crossed measurement design—each of several traits is measured by each of several methods. Second, because of the
judgmental nature of the MTMM it is impossible to quantify the degree of
construct validity in a study. Finally, the judgmental nature of MTMM meant
that different researchers could legitimately arrive at different conclusions.
(pp. 231-232)

The object in replicating the study performed by Pearson and Hall (1993) is to
determine the validity of their conclusions as to the elements constituting the construct of
teacher autonomy (i.e., Was the construct defined accurately? Are there defects in the
TAS? and Did they properly set up their construct validity study?). These questions are
addressed in chapter 3. “It should be particularly noted that rejecting the null hypothesis
does not finish the job of construct validation. The problem is not to conclude that the test
‘is valid’ for measuring the construct variable. The task is to state as definitely as possible
the degree of validity the test is presumed to have” (Kelly, 1954, p. 284).

As evidenced from the literature, teacher autonomy has been determined a
significant variable in teacher stress and burnout, professionalism, empowerment, job
satisfaction, school climate, and intrinsic and extrinsic motivation. Yet, with all the
emphasis placed on the need for teacher autonomy in these studies, this researcher could
only find two instruments, Charters (1974) and Pearson and Hall (1993), that had been
developed to research teacher autonomy as a separate construct.
CHAPTER III

METHOD

Introduction

The methods used in carrying out the study giving special emphasis to the analysis of data are explained in this chapter. The study was a correlational research designed to analyze the relationship between multiple independent variables and one dependent variable: autonomy. The reader is cautioned that while direct relationships between some of the independent variables and teacher autonomy were verified this does not constitute causation.

Purpose

The purpose of this study was (a) to determine whether the Teacher Autonomy Scale (TAS) would replicate a stable factor structure that measures perceptions of teacher autonomy and (b) to conduct correlational comparisons between teacher autonomy and other demographic data to determine cultural factors affecting teacher perceptions of their autonomy. The specific research questions were

1. Does confirmatory factor analysis of the Teacher Autonomy Scale continue to support general autonomy and curricular autonomy as the major subscales?

2. What relationships exist between the demographic characteristics and teacher autonomy as measured by the Teacher Autonomy Scale?
Research Participants and Setting

Three schools (1 elementary, 1 middle school, and 1 high school) were selected from each of three counties (Escambia, Santa Rosa, and Okaloosa) in the Florida panhandle. The participants in this study were all the teachers in the selected schools. In Escambia County, Woodham High School, Ransom Middle School, and Longleaf Elementary were selected. Schools chosen in Santa Rosa County were Holley-Navarre Intermediate, Holley-Navarre Middle, and Navarre High School. In Okaloosa County, the schools selected were Edge Elementary, Destin Middle School, and Niceville High School.

Escambia County is the most western of the three counties and is the most populated with approximately 294,000 residents, but is the smallest in land area encompassing just 661 square miles (U.S. Department of Commerce, 2002). The county has 8 public high schools, 12 middle schools, and 39 elementary schools with a total student population of over 43,000. The economy is primarily driven by heavy industry, light industry, tourism, agriculture, and the military with a per capita income of $22,560 (U.S. Department of Commerce). Santa Rosa County is sandwiched between Escambia and Okaloosa counties and is the largest of the three counties encompassing some 1,024 square miles yet has a population of only 120,000 (U.S. Department of Commerce). It has 6 public high schools, 7 middle schools, and 16 elementary schools with a total student population of just over 22,000. The economy of Santa Rosa County is heavily dependent on the military and service industry with some light industry, primarily in the lumber and chemical sectors. In 2000, the county ranked 25th in the state in per capita income of $24,311 (U.S. Department of Commerce). Okaloosa County incorporates some 936
square miles with a population of approximately 170,000 (U.S. Department of Commerce). It has 11 public high schools, 8 middle schools, and 22 elementary schools with a total student population slightly over 30,000. The major employer in the government sector is Eglin Air Force Base. In the services sector the leading employers were medical and other health services and business services. Electrical equipment and supply producers accounted for the most employment in the manufacturing sector. Okaloosa County has the highest per capita income of the three counties at $26,501 (U.S. Department of Commerce).

Securing Consent

Before any contact was made with anyone in the school system of the three counties chosen for the study the author completed the Human Participants Protection Education for Research Teams online course. After completion of the course, permission for the study was sought and obtained from The University of West Florida’s Institutional Review Board for Human Research Participant Protection (Appendix A). Next, consent was obtained from the superintendent of each of the three counties containing the schools and teachers to which the survey was administered. This consent was requested via a letter (Appendix B) with a personal visit when the consent was not forthcoming in a timely fashion (i.e., 2-week time period). Once written consent from the superintendents had been obtained, a letter to each school principal was sent explaining the study, verifying the approval of their superintendent, and asking for their endorsement for conducting the study in their school (Appendix C). Only after securing the consent of all
the superintendents and principals were copies of the instrument distributed to the teachers (Appendix D).

Instrumentation

The primary purpose of this study was to determine whether the TAS would replicate a stable factor structure that measures perceptions of teacher autonomy. The TAS is comprised of 32 questions divided into two parts: (a) 18 questions dealing with teaching information (teacher autonomy) and (b) 14 questions dealing with teaching conditions. As part of this construct validation, the author attempted to establish the related constructs underlying each of the 18 questions that comprise the construct of teacher autonomy.

As presented in Table 1, the 18 teaching information questions are presented and other instruments used in empirical studies which asked the same or similar question are identified. Few instruments could be found that attempted to measure teacher autonomy. The majority of studies that related teacher autonomy to other variables use only a few general questions to statistically evaluate teacher autonomy.

Only one other instrument designed primarily to measure teacher autonomy could be found: Charters’ (1974) Sense of Teacher Work Autonomy Measurement. This 24-item instrument was quite similar to the TAS with a few minor exceptions. Charters tended to stress time constraints and the need for teachers to look busy while the TAS addressed time more in terms of class scheduling. Charters also addressed the teachers’ freedom to say whatever they wished to students and the need to be on guard against saying or doing the wrong things, which the TAS does not address at all. Charters’ last
Table 1

The 18 Teacher Autonomy Scale Teaching Information Questions and Identical or Similar Questions Used in Other Empirical Study Instruments

<table>
<thead>
<tr>
<th>Questions</th>
<th>Charters’ autonomy study</th>
<th>Gnecco questionnaire</th>
<th>School and staffing study</th>
<th>Nero need deficiency</th>
<th>Losos’ study</th>
<th>School participant empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am free to be creative in my teaching approach.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. The selection of student-learning activities in my class is under my control.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Standards of behavior in my classroom are set primarily by myself.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4. My job does not allow for much discretion on my part.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. In my teaching, I use my own guidelines and procedures.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6. I have little say over the content and skills that are selected for teaching.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7. The scheduling of use of time in my classroom is under my control.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My teaching focuses on those goals and objectives I select myself.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
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<th>Nero need deficiency</th>
<th>Losos’ study</th>
<th>School participant empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. I seldom use alternative procedures in my teaching.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I follow my own guidelines on instruction.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I have only limited latitude in how major problems are resolved.</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. What I teach in my class is determined for the most part by myself.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>13. I have little control over how classroom space is used.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. The materials I use in my class are chosen for the most part by myself.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>15. The evaluation and assessment activities are selected by others.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>16. I select the teaching methods and strategies I use with my students.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>17. I have little say over the scheduling of use of time in my classroom.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>18. The content and skills taught in my class are those I select.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
item was also quite different than any item on the TAS as it states, “A lot of the time I have the idea that other teachers want to find out what I am doing in my classroom teaching just so they can judge me” (Charters, p. 216). Conversely, the TAS addressed major problems (Item 11) and classroom space (Item 13), all subjects not found in Charters’ instrument.

Gnecco (1983) asked one basic question which he phrased three ways to describe a teacher’s overall autonomy in the classroom as either all, some, or none. The all statement reads, “I have the latitude to teach in a manner that is totally comfortable for me, to make all daily and long-range curriculum decisions, and the frequent opportunity to contribute to the decisions that directly affect me, my students, and my school” (Gnecco, p. 64). This question is so broadly stated that it can be interpreted to correspond with each of Pearson and Hall’s (1993) 18 questions as reflected in Table 1.

Short and Rinehart’s (1992) school participant empowerment scale (SPES) included four items under the subscale of autonomy. Their items are so general that Item 16 which reads, “I am able to teach as I choose” can be interpreted to correspond directly to Items 1, 4, 5, and 16 of Pearson and Hall’s TAS and indirectly with Item 9. Likewise, their Item 25, “I have control over daily schedules” corresponds directly with Item 7 on the TAS and indirectly with Item 17. Item 31 on the SPES, “I have freedom to make decisions on what is taught” relates directly with Items 2, 10, 14, and 18 and indirectly with Item 12 on the TAS. The final autonomy item on the SPES deals with the teacher’s ability to make decisions about curriculum. The TAS does not use the term curriculum but this item was judged to be quite similar to Item 12 of the TAS which reads, “What I teach in my class is determined for the most part by myself.”
Teacher autonomy in the 1993-1994 Student and Staffing Survey as reported by Perie and Baker (1997) was measured by two major questions, both with a number of subcategories. Question 44 read, “At this school, how much actual influence do you think teachers have over school policy in each of the following (6 listed) areas?” Only two of the six areas listed deal with individual classroom related autonomy: (a) setting disciplinary policy and (b) establishing curriculum. These two areas relate directly to items on the TAS and as thus are indicated in Table 1. Question 45 was directed toward teacher autonomy in the classroom and asked the teachers to measure the control they had over six areas. All but the last area correlates directly or indirectly with areas measured on the TAS. The six areas are listed below and the five that relate to TAS items are also indicated in Table 1:

1. Selecting textbooks and other instructional materials.
2. Selecting content, topics, and skills to be taught.
3. Selecting teaching technique.
4. Evaluating and grading students.
5. Disciplining students.
6. Determining the amount of homework to be assigned.

Losos (2000) used the term responsibility to equate to teacher autonomy in his study, comparing the motivational levels of public, private, and parochial high school teachers. The four items he used to measure responsibility were again so general in nature that they can be related to all the items on the TAS. The specific items are

1. My superiors trust my ability to make decisions.
2. There are opportunities for increased responsibility in this school.
3. I have the opportunities to write or help create curriculum for this school.

4. Teachers in this school have opportunities to participate in decision making.

(Losos, p. 90)

Nero (1985) included 8 items on teacher autonomy in the 50 items Nero Need Deficiency Instrument (NNDI) he developed to measure (a) intrinsic and extrinsic motivational factors and (b) perceived need deficiencies as a function of job level in an urban school district. On a scale from 1, being minimum, to 7, equating to maximum, the teachers were ask to rate the ideal, actual, and importance of autonomy characteristics. Four of the eight autonomy questions dealt more with individual needs of a teacher than actual autonomy in the classroom. Once again, the four remaining characteristics are so vague that it is quite difficult to relate to specific items of the TAS. The four characteristics relating to teacher autonomy are listed below and are also reflected in Table 2:

1. Responsibility for setting my own goals.

2. Opportunity to participate in decisions which affect me.

3. Opportunity for independent and creative thought and action.

4. Amount of authority in my position. (Nero, p. 157)

The second part of the TAS is comprised of 14 questions dealing with teaching conditions. These 14 questions reflect the other elements comprising the teacher autonomy construct. Table 2 presents these 14 teaching information questions and then identifies other instruments used in empirical studies which asked the same or similar question although not necessarily in the exact wording of the TAS question. As previously stated, Charters’ autonomy study addressed only items directly related to
Table 2

The 14 Teacher Autonomy Scale Teaching Condition Questions and Identical or Similar Questions Used in Other Empirical Study Instruments

<table>
<thead>
<tr>
<th>Questions</th>
<th>Charters’ autonomy study</th>
<th>Gnecco questionnaire</th>
<th>School and staffing study</th>
<th>Nero need deficiency</th>
<th>Losos’ study</th>
<th>School participant empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How satisfied are you with current employment?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. How would you characterize the instructional load place on you in your classes?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How would you describe the paper work load place on you as a teacher?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How would you describe the stress level of your work environment?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How satisfied are you with your current salary situation?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6. Are you active on any work groups or committees within your school?</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Are you active on any work groups or committees at the district level?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>8. Do you have an interest in moving into an administrative or supervisory position in the near future?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Have you begun work on a more advanced degree?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. How often does your school’s administration consider the opinions of the faculty about matters that directly affect them?</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. How would you rate the openness and accessibility of the school administration to the faculty?</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. How would you rate the school’s administration in terms of involving the instructional staff in the development of school policy which affects their work?</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. How often are the concerns of the instructional staff taken into account in the decision made by the school administration?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>14. How would you rate the school’s administration in terms of providing frequent recognition for high performance among the faculty?</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
teacher autonomy; it is only reflected in Table 2 to retain the same format for both figures.

The instrument that Gnecco (1983) used to measure the perception of autonomy and job satisfaction among elementary teachers in southern Maine is a rather simplistic model comprised of only five items. Four of the items dealt with the teachers’ perceived autonomy and the other item asked teachers to choose between the statements, “Most of the time I am satisfied with my job” or “Most of the time I am not satisfied with my job.” This item was used by Gnecco to measure the teachers job satisfaction similar to item 1 in the TAS.

Short and Rinehart’s (1992) School Participant Empowerment (SPE) instrument was primarily used by the authors to measure teacher empowerment. The SPE included four items to measure autonomy; however, only one section dealing with decision making comprised of 10 items related indirectly to items 12 and 13 of teaching conditions on the TAS. The relationship was so weak that an attempt to match individual items from the SPE to the TAS was not made.

Losos (2000) developed a 41-item instrument to compare the motivational levels of public, private, and parochial high school teachers. The 41 items attempted to analyze (a) achievement, (b) recognition, (c) responsibility, (d) benefits and pay, (e) personal growth, (f) the work itself, (g) administrative support, (h) parental support, (i) teacher-student interaction, and (j) school philosophy. Item 5 of her instrument asks the teacher to agree or disagree with the statement, “If I were to do it all over again I would choose teaching as my career.” This item, like Item 1 on the TAS, is an attempt to measure teacher satisfaction. While the TAS has only one item (Item 5) that deals with teacher
pay, Losos dedicates a whole section of her instrument on benefits and pay with four related items. Item 30 of the Losos study came the closest of any of the other instruments of corresponding to Item 6 of the TAS which simply asked, “Are you active on any work groups or committees within your school?” Item 30 of the Losos study asked the teachers to rate their opportunity for increased responsibility in their school. There was a better match between Item 40 on the Losos instrument and Item 13 of the TAS where both asked about the teacher’s decision-making ability. Finally, two questions (Item 2 and Item 22) in the Losos study asked teachers to rate how well they believed high performance was recognized similar to that asked in Item 14 of the TAS.

The Schools and Staffing Study reflected nine items of the study that corresponded to the 14 items related to teaching conditions on the TAS. While there was not an item on the Schools and Staffing Study that directly asked the teachers how satisfied they were as Question 1 of the TAS did, two questions did seek to determine teacher job satisfaction. Question 48 of the Schools and Staffing Study asked, “If you could go back to college and start over again, would you become a teacher or not?” and Question 51b asked, “How long do you plan to remain in teaching?” The Schools and Staffing Study had an entire section on teacher workload but, unlike Item 2 of the TAS, dealt more with compiling statistics on the workload rather than asking the teacher whether it was excessive or not. However, Question 47j of the Schools and Staffing Study does ask the teachers if paperwork interferes with their teaching efforts similar to Item 3 of the TAS. The Schools and Staffing Study had a whole section dealing with incentives and compensation but also asked in Question 47d in the section on perceptions and attitudes toward teaching if the teachers were satisfied with their salary, almost a
direct quote of Item 5 of the TAS. There are also Items 10, 11, and 13 of the TAS which all deal with the relationship between the teachers and the school administration and vary only slightly in their wording. Similar questions are also found in the Schools and Staffing Study such as Question 44, which asked teachers how much influence they have over school policy in six different areas, Question 47f, and Question 47i. Question 47q, which asked if teachers are recognized for a job well done, addresses recognition somewhat similar to Item 14 of the TAS.

The NNDI (Nero, 1985) was based on Maslow’s need hierarchy and included (a) items on job security, working conditions, social, autonomy, esteem, self-actualization, achievement and (b) two open-ended questions in regard to satisfaction. The items on the NNDI that match up to those on the TAS are reflected in Table 2. The open-ended questions asked the teachers to discuss the most satisfying or dissatisfying aspect of their job. While similar to Item 1 on the TAS, the answer to these two questions does not render a quantifiable level of overall teacher satisfaction, unlike the TAS. The NNDI asked the teachers to rate how satisfied they were with the hours they worked but, unlike Item 2 on the TAS, failed to distinguish the reason for the hours worked. Item 3 of the TAS was quite similar to that of Item 13 of the NNDI with the exception that the NNDI specified noninstructional paperwork. The NNDI included four separate items relating to pay (i.e., fringe benefits, direct pay, cost of living adjustments, and pay raises for seniority or education) while the TAS asked one question (Item 5) as to satisfaction with salary. Item 14 on the TAS was the only other item to correspond to items on the NNDI and then only indirectly. There were two items on the NNDI that related to recognition
for high performance of teachers and they were Item 12, which dealt with merit pay, and Item 41, which addressed teachers’ need for recognition.

Procedure

The instrument, a cover letter explaining the instrument, and an envelope to return the completed survey were placed in the mail boxes of each teacher in the selected schools. The cover letters were cosigned by the appropriate school district superintendent and principal to encourage teacher participation in the survey. The teachers were requested to complete the survey, enclose and seal it in the envelope, and return it to the administrative office within 1 week of receipt.

Analysis of Data

Because the primary purpose of this study was not to identify a set of unknown factors but, rather, to verify a factor structure based on the findings of previous research, the data were analyzed using confirmatory factor analysis in the attempt to replicate the two-factor solution originally substantiated for the TAS. Participants’ responses to the TAS were subjected to factor analytic procedures using generalized least squares estimates. Orthogonal rotation to a simple structure was accomplished through the varimax method. It was hypothesized that the measurement model would be reproduced and that a fit between the data and the model would be found with no higher-order factors proposed. Reliability of the subscales and total instrument were again examined using the Cronbach alpha internal consistency coefficient. LISREL was utilized to reveal the theoretical underpinnings of the TAS to determine the fit of the data to the model.
Confidentiality

Confidentiality of the teachers completing the instrument was ensured since neither their names nor any other means of relating a particular instrument to a teacher was recorded on the instruments. All instruments, once completed, were sealed in identical envelopes and deposited in a box in the main school office. The envelopes were opened only by the researcher, who had no way to ascertain which teacher completed which instrument.

Researcher Bias

Researcher bias is most often prevalent in qualitative research but it cannot be ignored in quantitative research. Brown (1996) regards awareness of one's “biases, blind spots, and cognitive limitations . . . as high a priority as theoretical knowledge” (p. 20). Even though the quantitative researcher is dealing with a measurable scale, bias can either knowingly or subconsciously creep into the study. Huff (1993) has written a whole book relating to the problems of quantitative research entitled *How to Lie With Statistics*.

Although this study was a replication of a validation study on the TAS done by one of the researcher’s dissertation committee members, he feels no pressure or need to validate those findings. The researcher pledged to letting the statistics speak for themselves.
The purpose of this study was (a) to determine whether the Teacher Autonomy Scale (TAS) would replicate a stable factor structure that measures perceptions of teacher autonomy and (b) to conduct correlational comparisons between teacher autonomy and other demographic data. The research questions were as follows:

1. Does confirmatory factor analysis of the Teacher Autonomy Scale continue to support general autonomy and curricular autonomy as the major subscales?

2. What relationships exist between the demographic characteristics and teacher autonomy as measured by the Teacher Autonomy Scale?

Samples were drawn from all three public school levels (elementary, middle, and high schools) across three Florida counties (Escambia, Santa Rosa, and Okaloosa). By selecting these varying school levels and school districts, it was assumed that the results of the study could be generalized across these factors.

Research Question 1

The instrument used to address Research Question 1 was an 18-item Likert-type scale survey, TAS (Appendix E). Items 1, 2, 3, 4, 7, 9, 10, 11, 13, 15, 16, and 17 were grouped together to constitute the general autonomy scale. The curriculum autonomy
was defined by adding items 5, 6, 8, 12, 14, and 18. Items 1, 2, 3, 5, 7, 8, 10, 12, 14, 16, and 18 had to be recoded so that the high score denoted increased autonomy. The range of teacher autonomy scores was 31 to 72.

SAS’s program for reliability was used to estimate Cronbach alpha internal consistency. The overall coefficient for reliability for the 171 cases was determined with the total scale internal consistency coefficient being .83 for the 18-item total, an improvement from the previous study of \( r = .80 \). The reliability coefficient for both general autonomy and curriculum autonomy was .80, a decrease in reliability from the initial study \( (r = .85 \) and \( r = .81 \) respectively); however, the correlation between the subscales increased to \( r = .49 \). Item-total correlations for the total scale are provided in Table 3 and indicate that items with low correlations were primarily associated with the general teaching autonomy dimensions.

PRELIS, a subprogram of LISREL 8, was used to process the raw data, compute the appropriate covariance matrix, and conduct assumption examinations (e.g., linearity and normality, outliers, and multicollinearity). It also provided an initial descriptive overview of the raw data and manipulated data files. Bivariate scatter plots between several autonomy items revealed linear relationships, and none of the items were significantly skewed or highly kurtotic. There were also no univariate outliers. Multicollinearity was not assumed to be a threat since the item-total correlations were moderate and the solution converged in LISREL.

The hypothesized model that the original study specified with each of the 18 questions reflecting their linear relationship to either curriculum or general autonomy is depicted in Figure 1. Using maximum likelihood estimation via LISREL, an initial model
Table 3

*Standardized Cronbach Coefficient Alpha of the Teacher Autonomy (TA) Scale*

<table>
<thead>
<tr>
<th>Deleted variable</th>
<th>Correlation with total</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA1</td>
<td>0.48</td>
<td>0.82</td>
</tr>
<tr>
<td>TA2</td>
<td>0.51</td>
<td>0.81</td>
</tr>
<tr>
<td>TA3</td>
<td>0.38</td>
<td>0.82</td>
</tr>
<tr>
<td>TA4</td>
<td>0.42</td>
<td>0.82</td>
</tr>
<tr>
<td>TA5</td>
<td>0.51</td>
<td>0.81</td>
</tr>
<tr>
<td>TA6</td>
<td>0.40</td>
<td>0.82</td>
</tr>
<tr>
<td>TA7</td>
<td>0.44</td>
<td>0.82</td>
</tr>
<tr>
<td>TA8</td>
<td>0.46</td>
<td>0.82</td>
</tr>
<tr>
<td>TA9</td>
<td>0.35</td>
<td>0.82</td>
</tr>
<tr>
<td>TA10</td>
<td>0.49</td>
<td>0.82</td>
</tr>
<tr>
<td>TA11</td>
<td>0.27</td>
<td>0.83</td>
</tr>
<tr>
<td>TA12</td>
<td>0.56</td>
<td>0.82</td>
</tr>
<tr>
<td>TA13</td>
<td>0.35</td>
<td>0.82</td>
</tr>
<tr>
<td>TA14</td>
<td>0.38</td>
<td>0.82</td>
</tr>
<tr>
<td>TA15</td>
<td>0.38</td>
<td>0.82</td>
</tr>
<tr>
<td>TA16</td>
<td>0.53</td>
<td>0.81</td>
</tr>
<tr>
<td>TA17</td>
<td>0.37</td>
<td>0.82</td>
</tr>
<tr>
<td>TA18</td>
<td>0.20</td>
<td>0.83</td>
</tr>
</tbody>
</table>

was established that examined the independent model, which tested the hypothesis that all of the items were uncorrelated, and was easily rejected, $\chi^2(153, N = 171) = 965.94, p < .01$.

The hypothesized model was tested next and was supported, $\chi^2(134, N = 171) = 280.88, p = 0.01$, comparative fit index = .82 (Figure 2). The lambda’s (or loadings)
Figure 1. LISREL model of teacher autonomy with general autonomy and curricular autonomy as the major subscales. TA-1 through TA-18 refers to the teacher autonomy information questions while Curr refers to curriculum autonomy and Gen to general autonomy.
Figure 2. First LISREL run with $\chi^2(134, N=171) = 280.88, p = 0.01$. TA-1 through TA-18 refers to the teacher autonomy information questions while Curr refers to curriculum autonomy and Gen to general autonomy.
range from 0.22, or a weak correlation, to 0.79, a strong correlation, with most correlations being weak (0.1 < |ρ| < 0.5) as depicted in Table 4. The root mean square error of approximation (RMSEA) also indicated a good fit of the data to the model, RMSEA = .08.

Post hoc model modifications were performed in an attempt to develop a better fit and possibly a more parsimonious model. The LISREL modification indices suggested letting the errors of TA1 and TA2, TA7 and TA4, TA11 and TA4, TA11 and TA6, TA12 and TA10, TA15 and TA13, TA16 and TA11, and TA17 and TA7 correlate to modify the matrix and thereby reduce the total chi-square. The modification indices also suggested changing the path of TA5, “In my teaching, I use my own guidelines and procedures,” from curriculum autonomy to general autonomy and TA10, “I follow my own guidelines on instruction,” from general autonomy to curriculum autonomy. These suggestions were incorporated into the model to generate the second LISREL output.

The second LISREL output is represented in Figure 3 with χ²(129, n = 171) = 195.38, p = .01, CFI = .92. The lambda’s or covariance loadings range from 0.31, or a weak correlation, to 0.83, a strong correlation, with most correlations being moderate (0.5 < |ρ| < 0.8) as depicted in Table 5. Adding the indicated paths made conceptual sense as the item “I follow my own guidelines on instruction” logically related to the curriculum factor and the item “In my teaching, I use my own guidelines and procedures” logically relates to the general teaching autonomy factor. Further modifications to the model were not made as the reduction in the chi-square value was minimal and no additional paths were indicated; further evidence that the original model determined via exploratory factor analysis was replicated.
### Table 4

**LISREL Estimates, Standard Errors, and Standardized Solution of Autonomy Data: First Solution**

<table>
<thead>
<tr>
<th>Teacher autonomy teaching information items</th>
<th>Lambda</th>
<th>Error Lambda</th>
<th>t</th>
<th>Theta Delta</th>
<th>Error TD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am free to be creative in my teaching approach.</td>
<td>0.40</td>
<td>0.04</td>
<td>9.83</td>
<td>0.16</td>
<td>0.02</td>
<td>7.52</td>
</tr>
<tr>
<td>2. The selection of student-learning activities is under my control.</td>
<td>0.46</td>
<td>0.04</td>
<td>11.22</td>
<td>0.14</td>
<td>0.02</td>
<td>6.59</td>
</tr>
<tr>
<td>3. Standards of behavior are set primarily by myself.</td>
<td>0.25</td>
<td>0.04</td>
<td>5.97</td>
<td>0.23</td>
<td>0.03</td>
<td>8.75</td>
</tr>
<tr>
<td>4. My job does not allow for much discretion on my part.</td>
<td>0.36</td>
<td>0.06</td>
<td>6.08</td>
<td>0.44</td>
<td>0.05</td>
<td>8.73</td>
</tr>
<tr>
<td>5. In my teaching, I use my own guidelines and procedures.</td>
<td>0.47</td>
<td>0.07</td>
<td>7.21</td>
<td>0.51</td>
<td>0.06</td>
<td>8.60</td>
</tr>
<tr>
<td>6. I have little say over the content and skills that are selected for teaching.</td>
<td>0.40</td>
<td>0.08</td>
<td>5.19</td>
<td>0.81</td>
<td>0.09</td>
<td>8.93</td>
</tr>
<tr>
<td>7. The scheduling of use of time is under my control.</td>
<td>0.36</td>
<td>0.06</td>
<td>6.50</td>
<td>0.44</td>
<td>0.04</td>
<td>8.64</td>
</tr>
<tr>
<td>8. My teaching focuses on those goals and objectives I select myself.</td>
<td>0.67</td>
<td>0.06</td>
<td>10.66</td>
<td>0.36</td>
<td>0.05</td>
<td>7.36</td>
</tr>
<tr>
<td>9. I seldom use alternative procedures in my teaching.</td>
<td>0.24</td>
<td>0.06</td>
<td>3.85</td>
<td>0.54</td>
<td>0.06</td>
<td>9.04</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Teacher autonomy teaching information items</th>
<th>Lambda</th>
<th>Error Lambda</th>
<th>t</th>
<th>Theta Delta</th>
<th>Error TD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. I follow my own guidelines on instruction.</td>
<td>0.46</td>
<td>0.06</td>
<td>7.49</td>
<td>0.44</td>
<td>0.05</td>
<td>8.41</td>
</tr>
<tr>
<td>11. I have only limited latitude in how major problems are resolved.</td>
<td>0.28</td>
<td>0.07</td>
<td>4.10</td>
<td>0.63</td>
<td>0.07</td>
<td>9.01</td>
</tr>
<tr>
<td>12. What I teach is determined for the most part by myself</td>
<td>0.79</td>
<td>0.06</td>
<td>12.63</td>
<td>0.26</td>
<td>0.05</td>
<td>5.57</td>
</tr>
<tr>
<td>13. I have little control over how classroom space is used.</td>
<td>0.22</td>
<td>0.07</td>
<td>3.40</td>
<td>0.60</td>
<td>0.07</td>
<td>9.08</td>
</tr>
<tr>
<td>14. The materials I use are chosen for the most part by myself</td>
<td>0.28</td>
<td>0.07</td>
<td>4.28</td>
<td>0.60</td>
<td>0.07</td>
<td>9.03</td>
</tr>
<tr>
<td>15. The evaluation and assessment activities are selected by others.</td>
<td>0.33</td>
<td>0.07</td>
<td>4.89</td>
<td>0.61</td>
<td>0.07</td>
<td>8.92</td>
</tr>
<tr>
<td>16. I select the teaching methods and strategies I use with my students.</td>
<td>0.35</td>
<td>0.05</td>
<td>7.76</td>
<td>0.23</td>
<td>0.03</td>
<td>8.83</td>
</tr>
<tr>
<td>17. I have little say over the scheduling of use of time in my classroom.</td>
<td>0.28</td>
<td>0.05</td>
<td>5.21</td>
<td>0.39</td>
<td>0.04</td>
<td>8.87</td>
</tr>
<tr>
<td>18. The content and skills taught are those I select.</td>
<td>0.76</td>
<td>0.07</td>
<td>11.64</td>
<td>0.34</td>
<td>0.05</td>
<td>6.61</td>
</tr>
</tbody>
</table>
Figure 3. LISREL second and final run. $\chi^2(129, n = 171) = 195.38, p = .01$. TA-1 through TA-18 refers to the teacher autonomy information questions while Curr refers to curriculum autonomy and Gen to general autonomy.
Table 5

*LISREL Estimates, Standard Errors, and Standardized Solution of Autonomy Data: Second Solution*

<table>
<thead>
<tr>
<th>Teacher autonomy teaching information items</th>
<th>Lambda</th>
<th>Error Lambda</th>
<th>t</th>
<th>Theta Delta</th>
<th>Error TD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am free to be creative in my teaching approach.</td>
<td>0.35</td>
<td>0.04</td>
<td>7.97</td>
<td>0.20</td>
<td>0.03</td>
<td>7.85</td>
</tr>
<tr>
<td>2. The selection of student-learning activities is under my control.</td>
<td>0.43</td>
<td>0.04</td>
<td>10.00</td>
<td>0.16</td>
<td>0.02</td>
<td>6.94</td>
</tr>
<tr>
<td>3. Standards of behavior are set primarily by myself.</td>
<td>0.24</td>
<td>0.04</td>
<td>5.55</td>
<td>0.23</td>
<td>0.03</td>
<td>8.75</td>
</tr>
<tr>
<td>4. My job does not allow for much discretion on my part.</td>
<td>0.37</td>
<td>0.06</td>
<td>6.17</td>
<td>0.43</td>
<td>0.05</td>
<td>8.62</td>
</tr>
<tr>
<td>5. In my teaching, I use my own guidelines and procedures.</td>
<td>0.30</td>
<td>0.07</td>
<td>4.24</td>
<td>0.46</td>
<td>0.05</td>
<td>8.60</td>
</tr>
<tr>
<td>6. I have little say over the content and skills that are selected for teaching.</td>
<td>0.38</td>
<td>0.08</td>
<td>4.92</td>
<td>0.82</td>
<td>0.09</td>
<td>8.96</td>
</tr>
<tr>
<td>7. The scheduling of use of time is under my control.</td>
<td>0.36</td>
<td>0.06</td>
<td>6.43</td>
<td>0.38</td>
<td>0.05</td>
<td>8.56</td>
</tr>
<tr>
<td>8. My teaching focuses on those goals and objectives I select myself.</td>
<td>0.68</td>
<td>0.06</td>
<td>10.91</td>
<td>0.35</td>
<td>0.05</td>
<td>7.30</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Teacher autonomy teaching information items</th>
<th>Lambda</th>
<th>Error Lamda</th>
<th>t</th>
<th>Theta Delta</th>
<th>Error TD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. I seldom use alternative procedures in my teaching.</td>
<td>0.26</td>
<td>0.06</td>
<td>4.14</td>
<td>0.53</td>
<td>0.06</td>
<td>8.97</td>
</tr>
<tr>
<td>10. I follow my own guidelines on instruction.</td>
<td>0.32</td>
<td>0.07</td>
<td>4.83</td>
<td>0.38</td>
<td>0.05</td>
<td>8.44</td>
</tr>
<tr>
<td>11. I have only limited latitude in how major problems are resolved.</td>
<td>0.33</td>
<td>0.07</td>
<td>4.73</td>
<td>0.60</td>
<td>0.07</td>
<td>8.76</td>
</tr>
<tr>
<td>12. What I teach is determined for the most part by myself</td>
<td>0.80</td>
<td>0.06</td>
<td>13.01</td>
<td>0.23</td>
<td>0.05</td>
<td>5.26</td>
</tr>
<tr>
<td>13. I have little control over how classroom space is used.</td>
<td>0.23</td>
<td>0.07</td>
<td>3.50</td>
<td>0.60</td>
<td>0.07</td>
<td>9.04</td>
</tr>
<tr>
<td>14. The materials I use are chosen for the most part by myself.</td>
<td>0.27</td>
<td>0.07</td>
<td>4.19</td>
<td>0.60</td>
<td>0.07</td>
<td>9.05</td>
</tr>
<tr>
<td>15. The evaluation and assessment activities are selected by others.</td>
<td>0.33</td>
<td>0.07</td>
<td>4.81</td>
<td>0.62</td>
<td>0.07</td>
<td>8.87</td>
</tr>
<tr>
<td>16. I select the teaching methods and strategies I use with my students.</td>
<td>0.38</td>
<td>0.05</td>
<td>8.32</td>
<td>0.21</td>
<td>0.03</td>
<td>7.70</td>
</tr>
<tr>
<td>17. I have little say over the scheduling of use of time in my classroom.</td>
<td>0.31</td>
<td>0.05</td>
<td>5.76</td>
<td>0.37</td>
<td>0.04</td>
<td>8.74</td>
</tr>
<tr>
<td>18. The content and skills taught are those I select.</td>
<td>0.75</td>
<td>0.07</td>
<td>11.46</td>
<td>0.36</td>
<td>0.05</td>
<td>6.88</td>
</tr>
</tbody>
</table>
In conclusion, the replication of the prior study of the TAS (Pearson & Hall, 1993) supported the original derived factors of general teaching autonomy and curriculum autonomy as indicated by the good fit of the data to the model using confirmatory factor analysis. Again, as in the prior study, items that related to the general autonomy factor dealt with issues concerning classroom standards of conduct and personal on-the-job discretion, and items that related to the curriculum autonomy factor dealt with issues concerning selection of activities and materials as well as instructional planning and sequencing. Reliability of the TAS actually improved for the total scale even though it did not for the two subscales, and the correlation between the subscales also improved, supporting the relationship between them.

Research Question 2

The TAS was next analyzed to determine whether any relationship existed between teacher autonomy and the demographics of the teachers surveyed. SAS was utilized to generate analysis of variance. Demographics analyzed were county, level of school, and degree level.

Means and standard deviation for county, level of school, and degree level are reflected in Tables 6-8. Variances between the county of the schools are slight with the largest variance in the mean for county being 1.25 and the largest difference in the standard deviation being just .78. While the variances in the mean and standard deviation for the teachers’ degree level are slightly higher, they are still extremely small (2.41 and 1.24 respectively). However, the variance in the level of school is slightly higher with the
difference between the three means being 6.15 and the difference in the standard
deviation being 1.69.

Table 6

*Teacher Autonomy Mean and Standard Deviation by County*

<table>
<thead>
<tr>
<th>County</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escambia</td>
<td>52</td>
<td>54.37</td>
<td>8.13</td>
</tr>
<tr>
<td>Okaloosa</td>
<td>52</td>
<td>53.12</td>
<td>7.92</td>
</tr>
<tr>
<td>Santa Rosa</td>
<td>67</td>
<td>53.40</td>
<td>7.35</td>
</tr>
</tbody>
</table>

*Note.* Maximum score = 72.

Table 7

*Teacher Autonomy Mean and Standard Deviation by Level of School*

<table>
<thead>
<tr>
<th>School level</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>50</td>
<td>50.30</td>
<td>6.62</td>
</tr>
<tr>
<td>High</td>
<td>46</td>
<td>56.45</td>
<td>6.64</td>
</tr>
<tr>
<td>Middle</td>
<td>75</td>
<td>54.10</td>
<td>8.31</td>
</tr>
</tbody>
</table>

*Note.* Maximum score = 72.

Table 8

*Teacher Autonomy Mean and Standard Deviation by Level of Degree*

<table>
<thead>
<tr>
<th>Degree level</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>110</td>
<td>53.75</td>
<td>8.18</td>
</tr>
<tr>
<td>Masters</td>
<td>61</td>
<td>51.34</td>
<td>6.94</td>
</tr>
</tbody>
</table>

*Note.* Maximum score = 72.
Analysis of variance (ANOVA) was then run against the demographic variable to determine whether any of the gaps between the means were significant. County and degree level proved not to be significant while school type was significant with the $t$-test statistic of 8.39 exceeding the $F$-critical value, $\frac{.95}{2}$ $(2, 170) = 6.91$ (Table 9).

<table>
<thead>
<tr>
<th>Source</th>
<th>$df$</th>
<th>SS</th>
<th>MS</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>2</td>
<td>45.26</td>
<td>22.63</td>
<td>0.41</td>
</tr>
<tr>
<td>School type</td>
<td>2</td>
<td>933.90</td>
<td>466.95</td>
<td>8.39***</td>
</tr>
<tr>
<td>Degree level</td>
<td>1</td>
<td>15.93</td>
<td>15.93</td>
<td>0.29</td>
</tr>
</tbody>
</table>

***$p < .001$.

Tukey’s honestly significant difference (HSD) test was then used to post hoc the multiple comparisons. The difference between the means of the three school types and the outcome of SAS analysis at the 95% confidence level is reflected in Table 10. The difference between perceived autonomy at high schools versus elementary schools (6.16) was significant as was the difference between perceived autonomy at middle schools versus elementary schools (3.77).

The two organizational demographics explored were the school county and the school level. Teachers in Escambia expressed the greatest perception of teacher autonomy followed closely by Santa Rosa and Okaloosa. The means of all three varied by an average of only 1.25 and no significant difference was thus detected. The only significant demographic variable was the level of the school. The difference in the
Table 10

*Tukey’s Studentized Range (HSD) Test for Autonomy*

<table>
<thead>
<tr>
<th>School level comparison</th>
<th>$M$</th>
<th>Difference between $M$</th>
<th>Simultaneous 95% confidence limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Middle</td>
<td>2.40</td>
<td>-0.92</td>
<td>5.70</td>
</tr>
<tr>
<td>High-Elementary</td>
<td>6.12</td>
<td>2.56</td>
<td>9.76***</td>
</tr>
<tr>
<td>Middle-High</td>
<td>-2.40</td>
<td>-5.70</td>
<td>0.92</td>
</tr>
<tr>
<td>Middle-Elementary</td>
<td>3.77</td>
<td>0.55</td>
<td>6.99***</td>
</tr>
<tr>
<td>Elementary-High</td>
<td>-6.16</td>
<td>-9.76</td>
<td>-2.55***</td>
</tr>
<tr>
<td>Elementary-Middle</td>
<td>-3.77</td>
<td>-6.99</td>
<td>-0.55***</td>
</tr>
</tbody>
</table>

***$p < .001$.***

The perceived autonomy of teachers in high school as compared to elementary school and teachers in middle school was highly significant.
CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

Summary
The purpose of this study was to determine (a) whether the results of the teacher autonomy scale (TAS) administered by Pearson and Hall (1993) could be replicated and (b) what, if any, cultural factors affect teacher perceptions of their autonomy. The scale used by Pearson and Hall was used to measure perceptions of teacher autonomy in three northwest Florida school districts among the three school levels. The survey was voluntarily completed by 171 teachers who also provided demographic data on their education level, school district, school level, and years of teaching experience.

Summary of Findings

Research Question 1
Does confirmatory factor analysis of the Teacher Autonomy Scale continue to support general autonomy and curricular autonomy as the major subscales?

The replication of the prior study of the TAS by Pearson and Hall (1993) supported the original derived factors of general teaching autonomy and curriculum autonomy as indicated by the good fit of the data to the model using confirmatory factor analysis. Again, as in the prior study, items that related to the general autonomy...
factor dealt with issues concerning classroom standards of conduct and personal on-the-job discretion; items that related to the curriculum autonomy factor dealt with issues concerning selection of activities and materials as well as instructional planning and sequencing. Reliability of the TAS actually improved for the total scale even though it did not for the two subscales, and the correlation between the subscales also improved, supporting the relationship between them.

**Research Question 2**

What relationships exist between the demographic characteristics and teacher autonomy as measured by the Teacher Autonomy Scale?

Demographic data were collected in an effort to identify differences between one individual and two organizational characteristics of teachers and their perceptions of teacher autonomy. The individual characteristics examined included educational level. The majority of the teachers, 64%, had only a bachelor’s degree but had a slightly higher perception of having teacher autonomy than their counterparts possessing a master’s degree. Nevertheless, the difference in education level was statistically insignificant.

The two organizational demographics explored were the school county and the school level. Teachers in Escambia County expressed the greatest perception of teacher autonomy followed closely by Santa Rosa and Okaloosa Counties. The means of all three varied by an average of only 1.25; therefore, no significant difference was detected. The outcome was a little surprising in that Escambia was the only school district that had experienced a failing school and would have been subjected to more external controls to alleviate the failing situation. The only significant demographic variable was the level of
the school. The difference in the perceived autonomy of teachers in high school as compared to elementary school and middle school was highly significant. This outcome was not totally unexpected since elementary teachers have to follow more strict guidelines in curriculum and disciplinary actions as compared to their counterparts in middle or high school.

Conclusion

The conclusions of the Pearson and Hall (1993) study were replicated by this study and the original factors of general autonomy and curriculum autonomy were confirmed. The review of the demographics of the subjects of this study proved extremely interesting. The fact that there was no significant difference in TAS scores between the three counties tends to indicate that there is no significant difference in policies, leadership, or other environmental factors that could affect teachers’ perceived autonomy. Likewise, the lack of significance between the degree levels of the teachers indicates that as teachers advance educationally in their career field, it impacts on their perception of teacher autonomy. The one significant demographic was school level and, as the author previously stated, “elementary school teachers have to follow more strict guidelines in curriculum and disciplinary actions as compared to their counterparts in middle or high school.”

Recommendations

This author does not recommend that another study attempt to replicate the Pearson and Hall (1993) study; rather the author recommends that other researchers
explore the major construct discussed in chapter 2 of this study that impacts a teacher’s perception of his or her autonomy. The link between several constructs and teacher autonomy has been demonstrated, such as motivation, job satisfaction, stress and burnout, professionalism, and empowerment (Brunetti, 2001; Kim & Loadman, 1994; Klecker & Loadman, 1996; Ulriksen, 1996), and autonomy seems to have emerged as a critical factor in what teachers need in order to stay committed to the profession (Brunetti). Teacher autonomy is one of the working conditions associated with higher teacher satisfaction (Perie & Baker 1997), rather than background variables such as sex, age, and years of experience. Although not the focus of this study, reexamination of the relationships from the original study between autonomy and years of experience, highest degree held, and grade level most often taught revealed the same results and supports the work of Perie and Baker. The general teaching autonomy factor is logically consistent with the need for teachers to have control over their work environment, to stay satisfied with the job, and to stay committed to the profession. A measure of teacher autonomy could provide those who hire teachers with the insight to identify those who are satisfied with their jobs and professional identity and who will stay.

This author also recommends that a more in-depth study be performed in an attempt to define the parameters that make elementary teachers feel they lack teacher autonomy. Some of these parameters may just be perceptions held by elementary teachers that might be changed while the factors that truly impinge on the lack of teacher autonomy might be migrated to some degree by policy changes.
REFERENCES


(ERIC Document Reproduction Service No. ED166840)


annual meeting of the American Association of Colleges for Teacher Education, Chicago. (ERIC Document Reproduction Service No. ED393823)


APPENDIXES
Appendix A

The University of West Florida Institutional Review Board Approval Letter
June 9, 2003

Mr. William Moomaw
120 W. Hampton Ct.
Niceville, FL 32578

Dear Mr. Moomaw:

The Institutional Review Board (IRB) for Human Research Participant Protection has completed its review of your proposal titled "Teacher-perceived Autonomy: A Construct Validation of the Teacher Autonomy Scale" as it relates to the protection of human participants used in research, and has granted approval for you to proceed with your study. As a research investigator, please be aware of the following:

• You acknowledge and accept your responsibility for protecting the rights and welfare of human research participants and for complying with all parts of 45 CFR Part 46, the UWF IRB Policy and Procedures, and the decisions of the IRB. You may view these documents on the Office of Research web page at http://www.research.uwf.edu. You acknowledge completion of the IRB ethical training requirements for researchers as attested in the IRB application.

• You will ensure that legally effective informed consent is obtained and documented. If written consent is required, the consent form must be signed by the participant or the participant’s legally authorized representative. A copy is to be given to the person signing the form and a copy kept for your file.

• You will promptly report any proposed changes in previously approved human participant research activities to the Office of Research and Graduate Studies. The proposed changes will not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the participants.

• You are responsible for reporting progress of approved research to the Office of Research and Graduate Studies at the end of the project period. Approval for this project is valid for one year. If the data phase of your project continues beyond one year, you must request a renewal by the IRB before approval of the first year lapses. Project Directors of research requiring full committee review should notify the IRB when data collection is completed.
Mr. William Moomaw
June 9, 2003
Page 2

- You will immediately report to the IRB any injuries or other unanticipated problems involving risks to human participants.

Good luck in your research endeavors. If you have any questions or need assistance, please contact the Office of Research and Graduate Studies at 857-6378.

Sincerely,

John Bilbrey, Chair
IRB for Human Research
Participant Protection

cc: Dr. Patricia Wentz

William L. Huth
Associate Vice President
Research and Graduate Studies
Appendix B

Sample Letter to School Superintendents

(Reproduced as used)
December 12, 2002

Dear Superintendent:

I am presently a doctoral student in Curriculum and Instruction at the University of West Florida conducting research for my dissertation. Specifically, I am studying the construct of teacher autonomy and its relationship to teacher stress/burnout, professionalism, empowerment, job satisfaction, intrinsic and extrinsic motivation, and school climate. Attached is the survey instrument that I plan to administer to all teachers in an elementary, middle, and high schools in Escambia, Santa Rosa, and Okaloosa County. I estimate that completion of the instruments will take no more than 20 minutes.

I seek your approval to administer the instruments to the teachers at Edge Elementary, Destin Middle School, and Niceville High School. Once your approval is obtained, I will next proceed to secure the support of the principals at each of these schools. In conducting my research, I can assure you complete anonymity to protect the confidentiality of the teachers involved. The teacher’s names will not be recorded nor the instruments pre-coded in any manner to be able to relate the results of any instrument to any particular teacher.

I understand the demands placed on your time and would be very grateful for your support. I would be happy to meet with you at your convenience to discuss the research project in more detail.

Thanks you for your attention to my request, and I am looking forward to hearing from you as soon as possible.

Sincerely,

WILLIAM E. MOOMAW

Attch:
Teacher Autonomy Survey
Appendix C

Sample Letter to School Principals

(Reproduced as used)
November 25, 2002

Don Varner
Edge Elementary School
300 Highway 85, North
Niceville, FL 32578

Dear Principal Varner

I am presently a doctoral student in Curriculum and Instruction at the University of West Florida conducting research for my dissertation. Specifically, I am studying the construct of teacher autonomy and its relationship to teacher stress/burnout, professionalism, empowerment, job satisfaction, intrinsic and extrinsic motivation, and school climate. Attached is the survey instrument that I plan to administer to all teachers in an elementary, middle, and high schools in Escambia, Santa Rosa, and Okaloosa County. I estimate that completion of the instruments will take no more than 20 minutes.

I have obtained Superintendent Gaetz’s approval but also seek your approval to administer these instruments to the teachers at Edge Elementary. In conducting my research, I can assure you complete anonymity to protect the confidentiality of the teachers involved. The teacher’s names will not be recorded nor the instruments pre-coded in any manner to be able to relate the results of any instrument to any particular teacher.

I understand the demands placed on your time and would be very grateful for your support. I would be happy to meet with you at your convenience to discuss the research project in more detail.

Thanks you for your attention to my request, and I am looking forward to hearing from you as soon as possible.

Sincerely,

WILLIAM E. MOOMAW

Attch:
Teacher Autonomy Survey
Appendix D

Sample Letter to Teachers

(Reproduced as used)
November 25, 2002

Destin Middle School
689 Regatta Bay Blvd.
Destin, FL. 32541

Dear Destin Middle School Teachers

I am presently a doctoral student in Curriculum and Instruction at the University of West Florida conducting research for my dissertation. Specifically, I am studying the construct of teacher autonomy and its relationship to teacher stress/burnout, professionalism, empowerment, job satisfaction, intrinsic and extrinsic motivation, and school climate. Attached is the survey instrument that I plan to administer to all teachers in an elementary, middle, and high schools in Escambia, Santa Rosa, and Okaloosa County. I estimate that completion of the instruments will take no more than 20 minutes.

I have obtained Superintendent Gaetz’s and Principal Tibbett’s approval to ask each of you to assist me by completing the two attached survey instruments, sealing them in the enclosed envelope and dropping it by the administrative office where I will retrieve them. Please do not sign the instruments or envelopes to ensure confidentiality it maintained.

I realize the imposition on your time but I really need your help. The research study is a partial fulfillment of my requirements for a doctoral degree and the instrument return rate is crucial to the success of the research. Completion of the instruments is completely voluntary and return of the completed instruments constitutes implied consent. Please take the time to assist me.

Sincerely,

WILLIAM E. MOOMAW

Attch:
Teacher Autonomy Survey
Appendix E

Teacher Autonomy Survey

(Reproduced as used)
TEACHER AUTONOMY SURVEY

Instructions: Please fill in the blank or mark your choice as appropriate.

In which county do you work? _____________

Total years teaching experience __________

Highest academic degree
  ○ Bachelors
  ○ Masters
  ○ Educational Specialist
  ○ Doctorate

Teaching level
  ○ Elementary
  ○ Middle
  ○ High school

Subject emphasis
  ○ Art
  ○ Business/Distributive
  ○ Reading
  ○ Exceptional child-gifted
  ○ Exceptional child-other than gifted
  ○ Foreign language
  ○ English/Mass/Comm/Speech
  ○ Mathematics
  ○ Music
  ○ Physical education
  ○ Science/Health
  ○ Social Science/Studies
  ○ Language Arts
  ○ Other (please specify) ___________________________
<table>
<thead>
<tr>
<th></th>
<th>Definitely True</th>
<th>More or Less True</th>
<th>More or Less False</th>
<th>Definitely False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am free to be creative in my teaching approach.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The selection of student-learning activities in my class is under my control.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>Standards of behavior in my classroom are set primarily by myself.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4.</td>
<td>My job does not allow for much discretion on my part.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td>In my teaching, I use my own guidelines and procedures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I have little say over the content and skills that are selected for teaching.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7.</td>
<td>The scheduling of use of time in my classroom is under my control.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>My teaching focuses on those goals and objectives I select myself.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9.</td>
<td>I seldom use alternative procedures in my teaching.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10.</td>
<td>I follow my own guidelines on instruction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I have only limited latitude in how major problems are resolved.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>What I teach in my class is determined for the most part by myself.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I have little control over how classroom space is used.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>The materials I use in my class are chosen for the most part by myself.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>The evaluation and assessment activities are selected others.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I select the teaching methods and strategies I use with my students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I have little say over the scheduling of use of time in my classroom.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>The content and skills taught in my class are those I select.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TEACHING CONDITIONS

1. How satisfied are you with your current employment?
   - Very satisfied
   - Generally satisfied
   - Neither satisfied nor dissatisfied
   - Generally dissatisfied
   - Very dissatisfied

2. How would you characterize the instructional load placed on you in your classes?
   - Very heavy
   - Fairly heavy
   - Neither heavy nor light
   - Generally dissatisfied
   - Fairly light
   - Very heavy

3. How would you describe the paper work load placed on you as a teacher?
   - Very heavy
   - Fairly heavy
   - Neither heavy nor light
   - Fairly light
   - Very heavy

4. How would you describe the stress level of your work environment?
   - Very high
   - Fairly high
   - Neither high nor low
   - Fairly low
   - Very high

5. How satisfied are you with your current salary situation?
   - Very satisfied
   - Fairly satisfied
   - Neither satisfied nor dissatisfied
   - Fairly dissatisfied
   - Very dissatisfied

6. Are you active on any work groups or committees within your school?
   - Yes
   - No
7. Are you active on any work groups or committees at the district level?
   - Yes
   - No

8. Do you have an interest in moving into an administrative or supervisory position in the near future?
   - Yes
   - No
   - Not sure

9. Have you begun work on a more advanced degree?
   - Yes
   - No; but plan to do so within 2 years
   - No; presently I have no plans to work on an advanced degree.

10. How often does your school's administration consider the opinions of the faculty about matters that directly affect them?
    - Always
    - Most of the time
    - About half the time
    - Seldom
    - None

11. How would you rate the openness and accessibility of the school's administration to the faculty?
    - Excellent
    - Above average
    - Average
    - Below average
    - Unsatisfactory

12. How would you rate your school's administration in terms of involving the instructional staff in the development of school policies which affect their work?
    - Excellent
    - Above average
    - Average
    - Below average
    - Unsatisfactory

13. How often are the concerns of the instructional staff taken into account in the decisions made by the school administration?
    - Always
    - Most of the time
    - About half the time
14. How would you rate the school's administration in terms of providing frequent recognition for high performance among the faculty?

- Excellent
- Above average
- Average
- Below average
- Unsatisfactory