ABSTRACT

Title of Document:	TESTING A SOCIAL COGNITIVE MODEL OF WORK SATISFACTION AMONG TEACHERS
	Ryan Daniel Duffy, PhD, 2009
Directed By:	Professor Robert Lent, Counseling and Personnel Services

The purpose of the current study was to empirically test a new, integrative model of work satisfaction (Lent & Brown, 2006). The Lent and Brown (2006) work satisfaction model is composed of five hypothesized predictor variables: work conditions, goal progress, work-related self-efficacy, positive affect, and goal and efficacy relevant supports. Using a sample of 366 teachers, results revealed that this model was a strong fit for the data and accounted for 91% of the variance in work satisfaction. Additionally, of the five predictor variables, only work conditions, work-related self-efficacy, and positive affect were found to contribute unique variance. This suggests that teachers who are most satisfied with their jobs are those who have a generally positive disposition, are confident in their abilities to complete work-related tasks and goals, feel supported by their school, and feel that their work is a strong fit for their values and needs. Research and practice implications are suggested.

TESTING A SOCIAL COGNITIVE MODEL OF WORK SATSFACTION AMONG
TEACHERS

by

Ryan Daniel Duffy

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Advisory Committee:

Professor Robert Lent, Chair
Professor Patricia Alexander
Professor Karen O'Brien
Associate Professor Margaretha Lucas
Professor William Sedlacek

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Chapter I: Introduction

Statement of the Problem

Work satisfaction can be defined in a number of ways, but most often refers to the extent to which people like or dislike their jobs (Spector, 1997). In both industrial/organizational and counseling psychology, a vast amount of research has been completed to understand the factors that may predict work satisfaction, and each of these psychological disciplines has spawned theoretical models used to explain why certain individuals are more or less satisfied with their jobs. The key components of these models vary, and may include person-environment fit (Dawis & Lofquist, 1984; Kristof-Brown et al., 2005), goal setting (Locke & Latham, 1990), personality and affect (Breif & Weiss, 2002; Judge, Heller, & Mount, 2002; Judge & Larson, 2001), work characteristics (Hackman & Oldham, 1976), expectations (Porter & Lawler, 1968; Vroom, 1964), and various cognitions such as self-efficacy, self esteem, and locus of control (Judge, Erez, Bono, & Larson, 2002).

Recently, based on Bandura's (1986) social cognitive framework, Lent and Brown (2006) proposed a theory of work satisfaction that combines many of these components into a unified, empirically-testable model. This model is unique in that it focuses on variables that may be relatively modifiable (e.g. self-efficacy, goal participation), and thus may be especially useful for counselors working with clients presenting with job-related issues. Additionally, while work satisfaction has historically been a popular focus of research in counseling psychology, this topic has generated limited inquiry in recent years (Lent & Brown, 2006). This may be due to counseling/vocational researchers placing more of a focus on the career choice

process, thereby restricting our present empirical and clinical knowledge of satisfaction in working adults. The purposes of the current study are to test the validity of Lent and Brown's (2006) model in a particular sample of working adults, to determine the utility of each of the predictor variables and, based on the results, to propose suggestions for counselors. Specifically, this study will examine Lent and Brown's (2006) model using a sample of employed teachers, as they will likely share a coherent set of work tasks and work-related goals and a relatively homogeneous work environment, thereby aiding efforts to generalize the findings.

Along with the outcome variable of work satisfaction, the Lent and Brown (2006) model is composed of five classes of predictor variables (Figure 1). The first predictor class is personality/affective traits, examples of which include the Big 5 factors (extraversion, neuroticism, conscientiousness, agreeableness, openness) and positive and negative affect. The second variable class is participation in/progress at goal-directed activities, which may be defined as the degree to which individuals have personally valued work goals and are progressing on them. Third, self-efficacy expectations refer to individuals' beliefs in their ability to perform their work tasks or the behaviors required to achieve their work goals. Fourth, work conditions include various measures of the work setting, such as organizational support and the perceived degree of fit between what an individual expects and desires out of his or her job and what is actually being provided. The fifth and final predictor class is environmental supports and obstacles, which pertain specifically to supports or barriers related to one's work goals or to the development of self-efficacy. Each of these five predictor classes has been related to satisfaction within the work domain, or

other closely related domains, in previous research. The next section will briefly consider predictor-satisfaction relations with the variables used in the current study as well as discuss relations among the five types of predictor variables.

Central Predictors of Work Satisfaction in Lent and Brown (2006)

Positive Affect. To assess personality/affect, positive affect will be measured at a trait level. In general, trait affect refers to how much an individual regularly experiences a positive or negative state of emotion (Watson, Clark, & Tellegen, 1988). Many studies exploring the relation between affect and job satisfaction have been completed, including a meta-analysis by Connolly and Viswesvaran (2000). Across 27 studies, the authors found positive and negative affect to each correlate with job satisfaction, .49 and -.33, respectively. A more recent meta-analysis completed by Thoresen, Kaplan, Barsky, Warren, and de Chermont (2003) found that, in 79 studies, positive affect correlated with job satisfaction at .34 and, in 176 studies, negative affect correlated with job satisfaction at -.34. Using the Connolly and Viswesvaran (2000) data set, Ilies and Judge (2003) found that positive and negative affect together explain 30% of the variance in job satisfaction. Additional recent research has supported the strength of these relations. For example, Judge and Ilies (2004) found that positive and negative mood at work correlated with job satisfaction, .49 and -.46, respectively. In sum, there appears to be a moderate to strong relation between positive affect and job satisfaction, suggesting that individuals who generally experience more positive emotion are more likely to be satisfied at work.

Goal Progress. Having important goals, and making progress towards these goals, has been empirically supported as a critical component of general well-being

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(Diener et al., 1999; Lent, 2004; Ryan & Deci, 2001). Locke and Latham (1990) extended this principle to the work domain and suggested that having goals at work would serve as a motivating force and thus increase work performance and satisfaction. Other research has found that simply having work goals correlates with job satisfaction: Judge, Bono, Erez, and Locke (2005) found a correlation of .22 between these constructs, though Maier and Brunstein (2001) found a somewhat weak relation of goal commitment to satisfaction ($r = .08$).

The Lent and Brown (2006) model takes this principle one step further, suggesting that positively progressing towards work-related goals would lead to increased job satisfaction. A few studies already support this idea. For example, Wiese and Freund (2005) found that work-related goal progress correlated with work satisfaction cross sectionally at two time points (.28, .29) and longitudinally at .29. Maier and Brunstein (2001) also found that at two time points, goal progress related to job satisfaction at the .60 and .53 level. In sum, based on limited research, work-related goal progress appears to moderately to strongly correlate with job satisfaction, and progressing on goals seems more important than simply having them.

Self-Efficacy. A central component of both Bandura's (1986) social cognitive theory and Lent, Brown, and Hackett's (1994) social cognitive career theory, self-efficacy refers to the belief that one is capable of performing specific behaviors, including those necessary to achieve specific goals. A number of recent studies (e.g. Judge et al., 2002; Judge et al., 2003; Judge et al., 2005) have found that generalized self-efficacy relates to job satisfaction, with correlations ranging from .24 to .39; Judge and Bono's (2001) meta-analysis found that across 12 studies the average

correlation was .38. However, in the Lent and Brown (2006) model, it is proposed that the link between self-efficacy and work satisfaction is most pronounced when self-efficacy is measured in job or goal-specific terms.

Unfortunately, very little empirical research has been completed linking work-related goal or task self-efficacy to job satisfaction. In one study, teachers' beliefs in their abilities to successfully complete teaching-related work activities was found to correlate positively with job satisfaction (r = .56) (Caprara, Barbaranelli, Borgogni, & Steca, 2003). In another study, work-related task self-efficacy also correlated positively with job satisfaction using an organizational sample (r = .40) (Chen, Goddard, & Casper, 2004). Finally, academic goal self-efficacy has been found to relate to academic satisfaction (r = .56) (Lent et al., 2005). These few studies point to a moderate to strong correlation between domain-specific task or goal self-efficacy and domain satisfaction.

Work Conditions. Along with affect, research relating environmental conditions to job satisfaction is robust, and Lent and Brown (2006) note that this line of inquiry dominated job satisfaction research for many years. Lent (2008) proposes that work conditions include a variety of components, two of which are perceived work-related fit and perceived organizational support. Researchers have proposed two general types of work-related fit: needs/supplies fit (NS) and person/occupation fit (PO). NS fit pertains to congruence between an employee's needs and work rewards, and PO fit pertains to the congruence between an employee's values and the organizational culture (Cable & DeRue, 2002). Cable and DeRue (2002) found that both of these fit indices correlated with job satisfaction: NS (r = .61) and PO (r =

.53). A recent meta-analysis by Kristof-Brown et al. (2005) explored the relation of these fit indices to job satisfaction. Across 65 studies, PO fit was found to correlate with job satisfaction at .44. Similarly, across 32 studies, NS fit was found to correlate with job satisfaction at .61. These results suggest that the fit of individuals' needs and values to their work environment may correlate moderately to strongly with job satisfaction.

Additionally, Lent (2008) proposed that the degree to which employees feel supported by their work organization is an important component of the work environment. Within the I/O literature, research relating perceived organizational support (POS) to job-related outcomes is robust. In a meta-analysis by Rhoades and Eisenberger (2002), general POS was found to relate strongly ($r = .59$) to job satisfaction across 21 studies. Cable and DeRue (2002) also found POS to correlate moderately to strongly with PO fit and NS fit, .53 and .40, respectively. In sum, POS and work-related fit are hypothesized to comprise a latent factor of perceived work conditions, where individuals who feel a fit with their work environment and feel supported by their organization will report higher job satisfaction.

Goal and Efficacy-Relevant Environmental Supports and Obstacles. The final component of Lent and Brown's (2006) work satisfaction model concerns the degree to which one receives support versus barriers from others in relation to his or her work goals and self-efficacy. A core assumption of the original social cognitive model is that support, delivered through mechanisms such as encouragement and positive feedback, increases one's self-efficacy and outcome expectations (Bandura, 1986). In the current model, it is hypothesized that support would relate to these

variables as well as promote work satisfaction. This component of the model is the most tentative, as no previous research has looked specifically at work-related goal support and social cognitive outcomes. Some research (e.g. Babin & Boles, 1996; Baruch-Feldman et al., 2002) has related general work support received from co-workers, supervisors, family members, and friends to job satisfaction, with correlations ranging from .17 to .41. Other research (Lent et al., 2005; Lent, Singley, Sheu, Schmidt, & Schmidt, 2007) has related goal support in non-work domains (e.g. academic, social) to satisfaction, with correlations ranging from .59 to .64. For the current study, an adapted measure (Brunstein et al., 1996) will be used to explore how supported employees feel in the pursuit of their work-related goals by specific individuals (e.g. coworkers, supervisors).

Relations among Predictor Variables and Mediation Hypotheses

Along with the five hypothesized relations between each of the predictor classes and job satisfaction, the model hypothesizes another eight paths connecting the predictor variables to each other as well as eight mediational relationships (See Figure 1). Support in the literature for each of these sixteen non direct paths within the work domain is varied, but these paths tend to be considerably less studied than the predictor-job satisfaction relation. This lack of support is mostly due to very little empirical research being completed on self-efficacy and support specifically pertaining to the domain of work goals. Thus, hypotheses regarding the correlational links among many of the predictor variables as well as the mediational links between predictor variables and satisfaction will be based on research findings generalized from other domains (e.g. academic settings, career choice). Exploring the connections

among these variables as they pertain specifically to work goals may yield valuable contributions to the job satisfaction literature.

Teacher's Role in the Model

An important consideration to take into account is how surveying teachers specifically may impact the ability of the five main variables to predict satisfaction. The profession of teaching has been historically associated with high levels of stress, burnout, and turnover (Macdonald, 1999). Additionally, a number of scholars have suggested that the reasons individuals choose to pursue a career in teaching may be more related to an interest in helping others or contributing to the common good than for those pursuing other professions (Richardson & Watt, 2005; Serow, 1993). Due to the unique nature of the teaching profession, a number of studies have been completed examining the variables which may predict satisfaction among this population. Job satisfaction has been related to emotional exhaustion, job demands, control over one's work environment, school type, stress, tenure, competence, organizational culture, and social support (Chan, 2002; Kittei & Liynen, 2003; Ma & McMillan, 1999; MacDonald, 1999; Rasku & Kinnunen, 2003; Van Houtte, 2006).

To date, no one model exists to test work satisfaction among teachers specifically. However, this population was chosen for the current study as teachers often share common work-related tasks, goals, expectations, and education levels, and theorists have suggested that when first testing a new model it is critical that homogeneous samples be used (Weston & Gore, 2006). As such, the current study will seek to extend Lent and Brown's (2006) general satisfaction model to this population.

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In addition to testing the Lent and Brown (2006) model, an alternative model will be tested. Numerous theorists have suggested that when conducting a study using structural equation modeling, it is important to test an alternative model along with the main model to see if a different theoretically driven model may better predict the criterion variable (Anderson & Gerbing, 1988; MacCallum & Austin, 2000). For the current study, an alternative model will be tested which removes the links between the work conditions construct and other predictors in the model, as to date these links have received limited to no support in the literature (See Figure 2). Secondly, a supplemental hierarchical regression analysis will be conducted to explore the extent to which teacher specific variables not included in the Lent and Brown (2006) model predict satisfaction over and above the five core variables. Specifically, teacher level, teacher autonomy, and student behavior and atmosphere will be assessed as these variables have generated the largest amount of research (e.g. Perie & Baker, 1997; Thompson et al., 1997) and are not covered by the Lent and Brown (2006) general model.

Hypotheses and Research Questions

The research presented thus far suggests that each of the five predictor variables in the Lent and Brown (2006) model may be moderately to strongly related to job or work satisfaction. The purposes of this study are: (a) to examine the bivariate correlations between these variables and work satisfaction, (b) to explore the relations of these variables to each other, (c) to test whether each variable contributes significant variance in the prediction of work satisfaction after accounting for all the

other variables in the model, and (d) to determine if the proposed model provides a good overall fit to the data. In addition, two research question will be posed to explore the extent to which an alternative model may be a better fit for the data and also how much variance teacher specific variables add in the prediction of satisfaction. Given these main purposes of the current study, the following hypotheses and research questions are proposed:

Hypothesis 1: Positive affectivity will correlate positively with work satisfaction (Path 1).

Hypothesis 2: Progress at work-related goals will correlate positively with work satisfaction (Path 2).

Hypothesis 3: Work-related self-efficacy will correlate positively with work satisfaction (Path 3).

Hypothesis 4: Work conditions, as represented by POS, N/S Fit, and D/A Fit, will

correlate positively with work satisfaction (Path 4).

Hypothesis 5: Higher levels of work-related goal support will correlate positively with

work satisfaction (Path 5).

Hypothesis 6: Positive affectivity will correlate positively with:

a) Work-related self-efficacy (Path 6).

b) Work-related goal support (Path 7).

Hypothesis 7: Work-related self-efficacy will correlate positively with:

a) Progress at work-related goals (Path 9).

b) Work conditions (Path 13).

c) Work-related goal support (Path 11).

Hypothesis 8: Work-related goal support will correlate positively with:

a) Progress at work-related goals (Path 10).

b) Work conditions (Path 12).

Hypothesis 9: After accounting for the other four predictor variables, unique variance in

the prediction of work satisfaction will be added by:

a) Positive affectivity.

b) Progress at work-related goals.

c) Work-related self-efficacy.

d) Work conditions.

e) Work-related goal support.

Hypothesis 10: Progress at work-related goals will partly mediate the relation of work-related self-efficacy and work satisfaction.

Hypothesis 11: Progress at work-related goals will partly mediate the relation of work-related goal support and work satisfaction.

Hypothesis 12: Progress at work-related goals will partly mediate the relation of work conditions and outcomes and work satisfaction.

Hypothesis 13: Work-related self-efficacy will partly mediate the relation of work-related goal support and work satisfaction.

Hypothesis 14: Work-related self-efficacy will partly mediate the relation of positive affect and work satisfaction.

Hypothesis 15: Work conditions will partly mediate the relation of work-related goal support and work satisfaction.

Hypothesis 16: Work conditions will partly mediate the relation of work-related self-efficacy and work satisfaction.

Hypothesis 17: Work-related goal support will partly mediate the relation of positive affect and work satisfaction.

Hypothesis 18: The proposed model of work satisfaction will produce good

overall fit to

the data.

Research Question 1: Does an alternative, simplified model better fit the data than the Lent and Brown (2006) hypothesized model?

Research Question 2: How much variance do the teacher specific variables of autonomy, teacher level, and student behavior/school atmosphere add in the prediction of work satisfaction over and above the variance accounted for by the predictors in the Lent and Brown (2006) model?

Figure 1
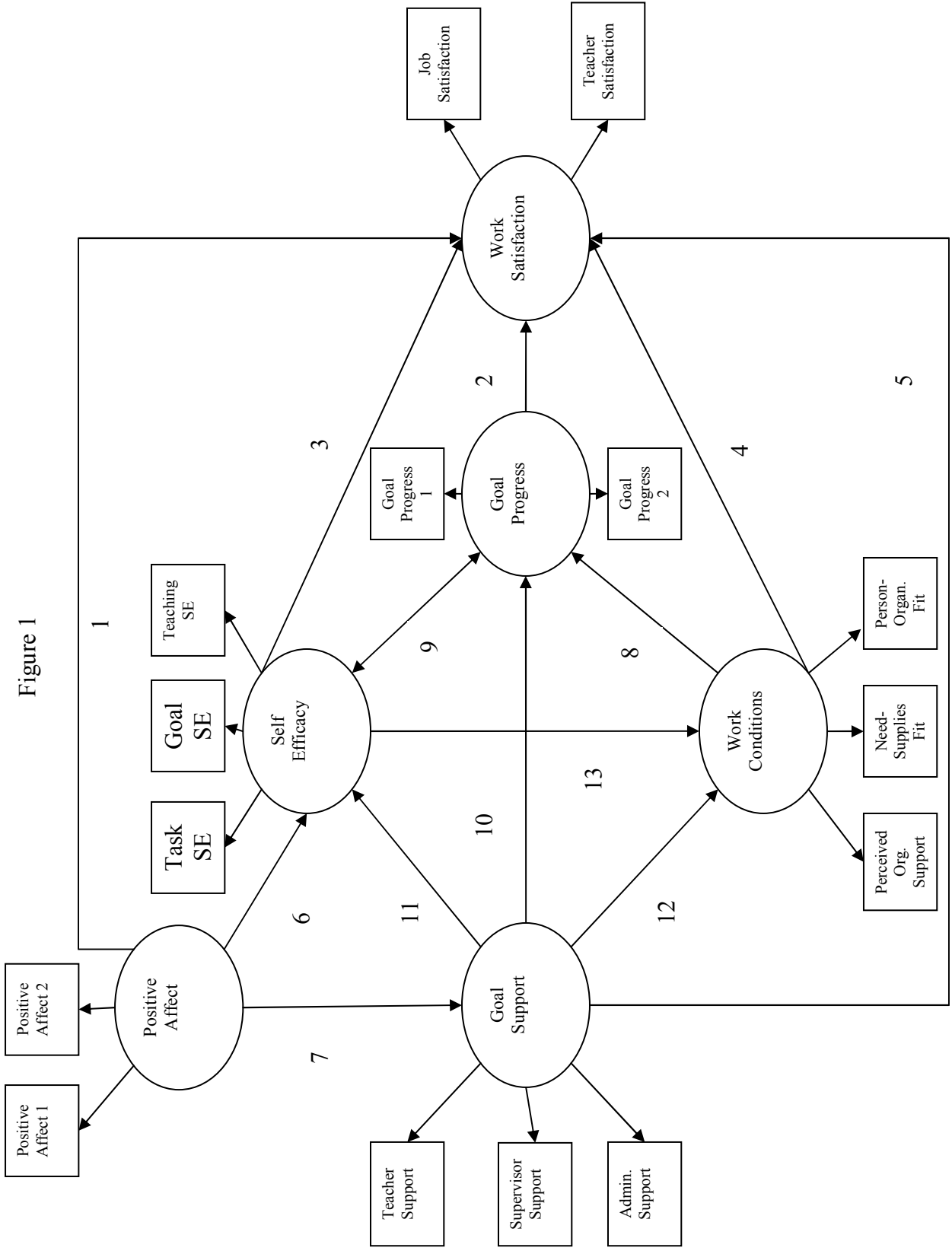
Figure 2
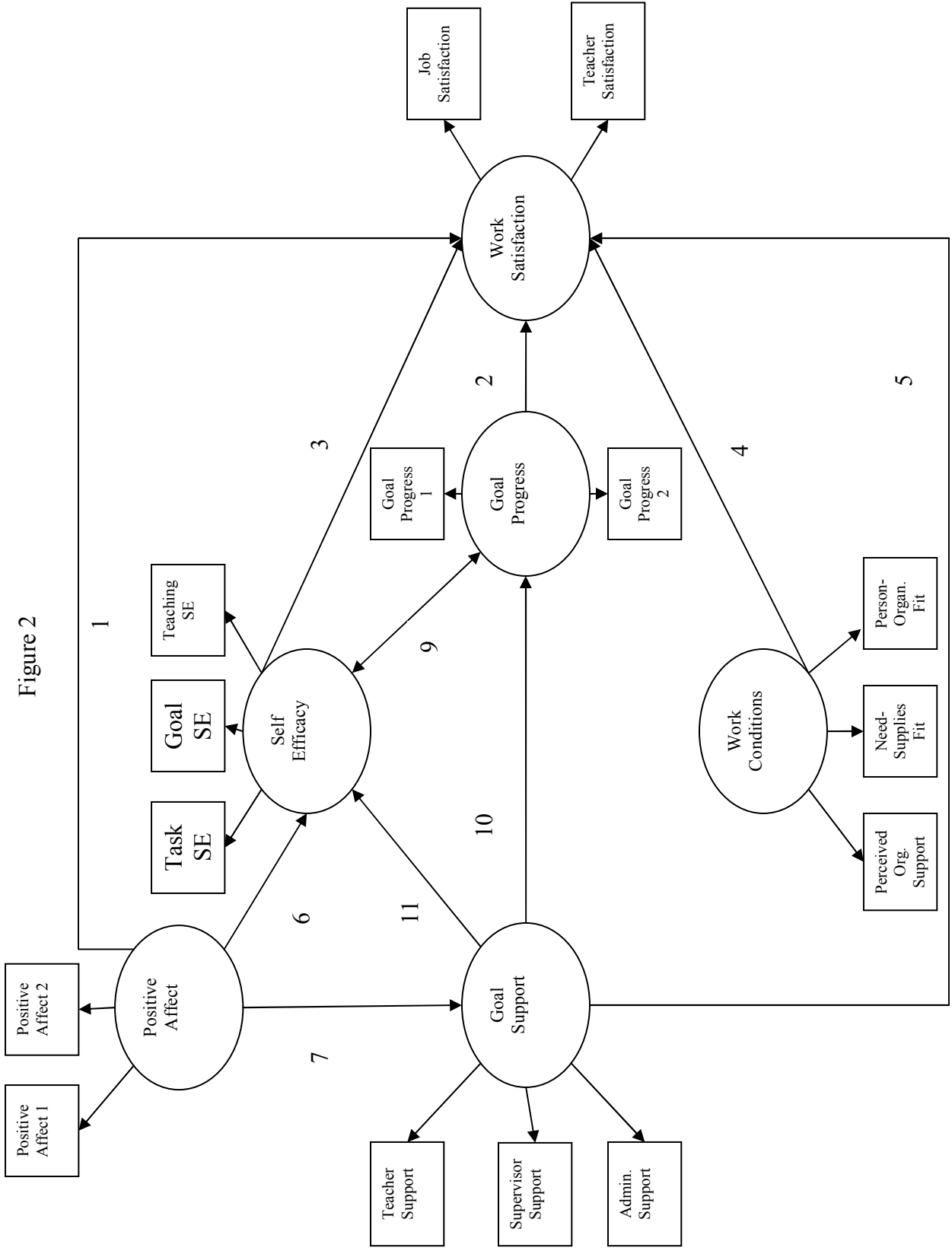
Chapter II: Literature Review

Research into the prediction of work satisfaction has a rich history in counseling and I/O psychology. For counseling psychologists who typically study the career development process of individuals, work satisfaction might be considered an ultimate outcome variable, and understanding how individuals become satisfied with their careers is of great importance. A number of models have emerged to explain the variables which predict job or work satisfaction (Brief & Weiss, 2002; Dawis & Lofquist, 1984; Judge, Heller, & Mount, 2002; Locke & Latham, 1990; Porter & lawler, 1968; Vroom, 1964). A shared goal of each of these models is to best predict work satisfaction in the most parsimonious manner. The current study seeks to empirically test a new model of work satisfaction developed by Lent and Brown (2006). This model incorporates various components from previous models (e.g. affect, fit, goal progress) and also examines variables such as goal specific self-efficacy and goal support which have received less attention.

This introduction will first explore the various job or work satisfaction models that have been previously proposed, which have each highlighted specific classes of variables, such as goal setting, job characteristics, disposition/personality, person-environment fit, and expectations. Second, literature on the relations between job satisfaction and each of the predictor variables in the Lent and Brown (2006) integrative model will be examined. These include positive affect, work conditions, goal progress, work-related self-efficacy, and goal support (Paths 1-5). Third, while considerably less extensive, research on the proposed interrelationships between the predictor variables (Paths 6-13) and hypothesized mediational paths will be explored.

Examples include the relation between work-related self-efficacy and goal progress or between goal progress and work conditions. Finally, the literature on teacher job satisfaction will be reviewed to explore how this unique population may impact findings using the Lent and Brown (2006) satisfaction model.

<div align="center">Previous Job or Work Satisfaction Models</div>

Lent and Brown (2006) proposed an integrative model that combines several established indicators of work satisfaction and in particular focuses on goal related behavior. All of the established predictor variables used in the Lent and Brown (2006) model are centerpieces of other job or work satisfaction models which have been tested previously. In the following section, a brief description will be provided of the major satisfaction models within the literature and also the pieces of these models which have been incorporated into Lent and Brown's (2006) integrative model.

Goals

Goals are a centerpiece of the Lent and Brown (2006) model, as goal progress, goal related self-efficacy, and goal related support are each hypothesized to uniquely predict satisfaction. The importance that the Lent and Brown (2006) model places on goal related behavior is reflective of Locke and Latham's (1990) model of work motivation and satisfaction. As seen in Appendix P, this model proposes that having work-related goals in combination with confidence in achieving these goals will predict satisfaction indirectly. The authors propose that the relation of goals and satisfaction is mediated by such variables as effort and persistence, moderated by such variables as goal commitment and task complexity, and then related to performance, rewards, and in turn satisfaction. As such, Locke and Latham (1990)

propose that goals are a starting point for the prediction of satisfaction, but that their relation to this ultimate outcome is dependent on a host of other variables.

Much of the empirical support for the Locke and Latham (1990) model was completed through research connecting specific pieces of the model. For example, in their 1981 meta analysis, Locke, Shaw, Saari, and Latham found that setting concrete, challenging goals led to higher work performance than setting easy to achieve goals or no goals at all. The authors also found that goals related to performance by increasing persistence and attention and that the links were most strong when individuals had the ability to achieve those goals. These findings likely served as major influences on the mediators/moderatos in Locke and Latham' (1990) model. Other research found that self-efficacy to achieve goals related to both past and future performance (Locke, Frederick, Lee, & Bobko, 1988), that performance is heavily related to work rewards, and that work rewards are heavily related to satisfaction (Locke & Latham, 1990).

The authors of this model have also explored additional mechanisms which affect the goal-satisfaction relation that are pertinent for the current study (Locke & Latham, 2002). Latham, Erez, and Locke (1988) found that individuals with who are assigned goals and told the purpose of these goals have equal motivational outcomes as those whose goals are self set. However, when these goals are assigned without explanation, self set goals are more related to performance and satisfaction. Additionally, self set goals have been found to relate more strongly to self-efficacy regardless of how goals are assigned (Locke & Latham, 2002). As self-efficacy plays a critical role in the Lent and Brown (2006) model, these findings influenced the

decision in the current study to use self set goals in determining teacher's goal support, goal progress, and goal self-efficacy.

The Locke and Latham (1990) model and subsequent empirical findings serve as a major influence for the Lent and Brown (2006) integrative model. However, while the Locke and Latham (1990) model is based on sound research findings, it does not incorporate key components from other satisfaction models which have also received support from rigorous empirical research. In particular, personal dispositions, job characteristics, and person-environment fit serve minimal to no role in the Locke and Latham (1990) model.

Disposition

A dispositional approach to satisfaction proposes that the majority of variance in the prediction of work satisfaction has to do with personality/affect related variables which are most often measured outside the work context. Here, the simple explanation would be that those who are happy in general tend also to be happy at work. This approach has been recently spearheaded by Judge and colleagues (Judge et al., 1998; Judge et al., 2001; Judge et al., 2005) who have proposed that job satisfaction is predicted by 4 core self evaluations (self esteem, generalized self-efficacy, neuroticism, locus of control) and perceptions of work characteristics (Appendix Q). Since proposing the initial core self evaluations model in 1998, a host of empirical research has been completed which have tested these relations.

In their original study, Judge et al. (1998) used three samples and found that the 4 core self evaluations related directly to job satisfaction, with values ranging from .15-.49 and also related indirectly to job satisfaction through perceptions of

work characteristics, with values ranging from .12-24. When including both the direct and indirect paths, core self evaluations were found to relate to satisfaction with values ranging from .27-.65. Other research has related the core self evaluations construct to performance ($r = .35$) and task motivation ($r = .39$), as well as goal related variables including goal setting ($r = .42$), goal commitment ($r = .59$), goal pursuit ($r = .33$), and the self concordance of goals ($r = .16, .27$) (Judge et al., 2001; Judge et al., 2005).

Through this research, Judge and colleagues have proposed that between 30-40% of the variance in job satisfaction can be attributed to the core self evaluations construct (Judge, Bono, & Locke, 2000; Judge et al., 2005), and that this variance increases when including such mediators as perceptions of work characteristics and goal setting. Considering the important role that dispositions can play in predicting satisfaction, the Lent and Brown (2006) model included personality/affect as one of its five main predictor variables. However, similar to the Locke and Latham (1990) model, by only testing dispositional variables and work characteristics, Judge and colleagues do not include other important predictors such as person-environment fit.

Person-Environment Fit

Perhaps the most studied predictor of job satisfaction has been the degree to which an individual fits a particular work environment. Several major theories of job or work satisfaction have included this variable as a central predictor, most notably the Theory of Work Adjustment (TWA; Dawis & Lofquist, 1984). TWA proposes that the correspondence between what an individual values and the degree to which these values are being reinforced in the environment will predict satisfaction.

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Additionally, the degree to which a person's abilities are meeting the requirements of a particular work environment is hypothesized to predict satisfactoriness, or the degree to which the environment is satisfied with the employee (Dawis, 2005). It is proposed hat satisfaction and satisfactoriness will lead to intentions to remain or retain respectively, and that these in turn will lead to the tenure of the individual in that particular environment (Dawis, 2005). In the almost 50 years since TWA was proposed, a number of studies have been completed testing the major propositions. Much of this research is published in the *Minnesota Studies in Vocational Rehabilitation* bulletin series, Dawis and Lofquist's (1984) book entitled *A psychological theory of work adjustment*, and a number of journal articles.

While the TWA might be considered the most prominent P-E fit theory as it applies to work satisfaction, theorists in the field of industrial and organizational psychology have extensively studied the degree to which an individual's perception of fit relates to work outcomes. For example, in a recent meta analysis by Kristof-Brown et al. (2005), the authors found 172 studies which had studied P-E fit, with 47 of these studies looking at the relations of person-job fit and job satisfaction and 65 studies looking at the relations of person-organization fit and job satisfaction. However, for many of these studies, and in particular the TWA model, other well established satisfaction predictors are not included. Understanding the variance that perceptions of fit add to the prediction of satisfaction while accounting for other established predictors is a critical component of the Lent and Brown (2006) model and a main purpose of the current study.

Job Characteristics

Another influential theory of job satisfaction has been the job characteristics approach, which has been discussed by a number of authors, most prominently Hackman and Oldman (1976). The Job Characteristics Theory states that there are certain universal components in jobs that lead to people finding enjoyment and meaning in their work (Hackman & Oldham, 1976; Spector, 1997). In Hackman and Oldham's (1976) original theory, the authors proposed that these characteristics were: skill variety (SV), task identity (TI), task significance (TS), autonomy (A), and job feedback (F). The authors proposed that the degree to which these factors are present in an individual's job will relate to their satisfaction with the following equation:

$$\text{Satisfaction} = \frac{SV + TI + TS}{3} \times A \times F$$

Hackman and Oldham (1976) theorized that the relation of job characteristics to satisfaction is moderated by the degree to which individuals have growth need strength (GNS), or a desire to grow personally through work. While this is considered a personality variable, the main impetus of the job characteristics approach is measuring the components of jobs rather than the components of individuals.

A great deal of research has been completed over the last 30 years testing the principles of the Hackman and Oldham theory, and the authors' 1976 article has been cited over 300 times in the PsycINFO database. Two meta analyses have been completed exploring the theory: Freid and Ferris (1987) and the more recent, inclusive article by Humphrey, Nahrgang, and Morgenson (2007). Humphrey et al. (2007) found between 111 (skill variety) and 175 (autonomy) studies exploring the relation of the five job characteristics to satisfaction. The authors found the following corrected correlation values for each of the characteristics to job satisfaction: A ($r =$

.48), SV (r = .42), TI (r = .46), TS (r = .41), F (r = .43). The authors included these

five variables, in addition to three more recently studied job characteristics (task

variety, information processing, job complexity) in a regression equation to predict

satisfaction. Humphrey et al. (2007) found that these eight variables accounted for

34% of the variance in job satisfaction.

The major premise of the job characteristics approach is that there are certain

types of jobs, or jobs in certain types of settings, that individuals are more likely to be

satisfied with. While these types of variables on a specific job level are not included

in the Lent and Brown (2006) model, it is believed that using a participant pool that

each have the same job and are members of the same school system will allow for

many of these job characteristics to be controlled for. However, it is still likely that

the specific school environment that teachers are working in may impact to some

degree their satisfaction. In reviewing the literature on teacher job satisfaction,

several of these variables will be discussed as well as included in supplemental

analyses.

Expectancy-Valence

Several prominent models of job satisfaction have been proposed by Vroom

(1964) and Porter and Lawler (1968) which focus on the degree to which individuals

believe that their work efforts will result in rewards. For Vroom (1964), expectancy

was defined as a person's subjective feeling of confidence that work-related actions

will lead to positive outcomes. Vroom (1964) defined valence as the anticipated level

of these outcomes and proposed that by multiplying an individual's expectancy (E) by

their valence (V) would relate to their motivation and effort. A meta analysis by Van

Eerde and Thierry (1996) examined 77 studies which had explored Vroom's (1964) original expectancy model, and found that E x V correlated .17 with work-related effort and .29 with work performance.

Lawler and Porter (1968) further extended this model as it relates particularly to work satisfaction. They proposed that the performance expectations related to effort, which in turn related to performance, which in turn related work satisfaction. Additionally, Lawler and Porter (1968) suggested that the relation between effort and performance was moderated by ability and job demands and that the relation between performance and satisfaction was moderated by the degree to which one is rewarded for their performance. Both the Vroom (1964) and Lawler and Porter (1968) models have received a considerable amount of research attention throughout the industrial/organizational literature, and point to the importance that confidence in being able to achieve work-related tasks plays in the promotion of performance and satisfaction. For the current study, assessing work-related task and goal self-efficacy will capture this main component of the Vroom (1964) and Lawler and Porter (1968) models.

Demographic Predictors

Finally, it is important to consider the various demographic predictors which have been tested in predicting job satisfaction and the role these might play in the current study. Perhaps the most studied among these variables have been income, gender, educational level, tenure, and age. Several studies have shown that the age-satisfaction relation is "u shaped", where those who are just entering the working world and those at the end of their careers tend to be slightly more satisfied than those

in the middle of their working lives (Clark, Oswald, & War, 1996; Kacmar & Ferris, 1989). Due to this u-shaped finding, the correlational relation of age and job satisfaction tends to be negligible. Similarly, gender has been found to play minimal to no role in predicting satisfaction, which has often surprised researchers as women tend be paid less and experience more workplace difficulties then men (Hodson, 1989; Mason, 1995; Smith, 2007).

Research from larger scale descriptive studies have shed light on the relations between education, income, and satisfaction. Most recently, Smith (2007) used data from the General Social Surveys from 2002-2006 with a sample of 4,738 employees. Smith (2007) found that as level of education increased so did the degree of satisfaction, where for example 45% of individuals with less than a high school degree were very satisfied with their job while 58% of those with a graduate degree were very satisfied with their job. A similar trend was found with regard to income, where 40% of individuals making less than $10,000 a year were very satisfied with their job while 68% of those making over $110,000 a year were very satisfied. As teachers likely have similar salaries and similar educational backgrounds, it is hypothesized that these variables will not contribute unique variance in the prediction of satisfaction and will not be included in the analyses.

Summary

This brief review of the major theories of job or work satisfaction, along with the demographic correlates, provides some background for where most of the major constructs of the Lent and Brown (2006) model originate. Namely, personality/affect, person environment fit, self-efficacy, and goal related variables each have their roots

as integral components of well studied satisfaction models, and will be measured in the current study. The Lent and Brown (2006) model serves to blend these components in an integrative framework while also tying self-efficacy and support specifically to work-related goal and task behavior. In the next section, a more extensive review will be presented exploring the links between job or work satisfaction and the five main predictor variables in the Lent and Brown (2006) integrative model.

<div align="center">Job Satisfaction Relations</div>

Positive Affect

Positive affect reflects, "The extent to which a person feels enthusiastic, active, and alert" (Watson, Clark, & Tellegen, 1986; p. 1063), and it is proposed that higher levels of positive affect will result in a state of higher concentration, energy, and engagement. Positive affect (PA) is most typically paired with negative affect (NA), which pertains to an aversive mood state, and both of these variables have been measured in a great number of studies during the past twenty years. According to a PSYCinfo search, Watson et al.'s (1988) scale development study has been cited over 2,000 times. PA and NA are believed to be partially heritable and have been linked to a range of psychological variables, including depressive symptoms, anxiety, personality, and work-related outcomes including job satisfaction (Baker, Cesa, Gatz, & Mellins, 1992; Connolly & Viswesvaran, 2000; Eid & Diener, 1999; Thoresen et al., 2003; Watson, Clark, & Carey, 1988).

Researchers have suggested that PA and NA should not be conceptualized as a single bipolar construct of affectivity, but rather as two distinct variables that tend to

correlate moderately (Diener & Emmons, 1984; Thoresen et al., 2003; Watson et al., 1986). For the current study, it was decided to measure only PA; attempting to fit both of these constructs into the overall measurement model would have resulted in significantly more parameter estimates and limited the parsimony of the model. In the literature assessing work-related outcomes, PA has most often been correlated with job satisfaction, and a number of recent meta analyses have shed light on what the relationship is among these variables across a large number of studies. In the remainder of this section, each of these meta analyses will be described along with more current empirical research not cited in these articles.

Two articles have meta analytically explored the links between positive affect and job satisfaction (Connolly & Viswesvaran, 2000; Thoresen et al., 2003). Connolly and Viswesvaran (2000) reviewed fifteen articles which had linked positive affect to job satisfaction with a total of 3,326 participants. The authors found that 8 of these studies measured affect using the PANAS scale (Watson et al., 1988), 5 used the affect scale from the Multidimensional Personality Questionnaire (Tellegen, 1982), and 3 used the Job Affect Scale (Brief et al., 1988). The authors also assessed whether the relation of NA to job satisfaction was moderated by other variables, including the instrument used to measure job satisfaction, tenure, organizational sector, organizational size, and age. While not measured in the current study, is it useful to note that the NA-job satisfaction relation was shown to be stronger for younger employees and when using the Job Descriptive Index rather than the Minnesota Satisfaction Questionnaire. For PA specifically, results revealed that PA and job satisfaction had a corrected correlation of .49, which was the sample size

weighted mean correlation across all 15 studies. The results of this meta analysis suggest that PA has a strong, positive relation with job satisfaction.

Thoresen et al. (2003) explored the relation of PA and NA to a variety of work-related outcomes, including job satisfaction, organizational commitment, emotional exhaustion, depersonalization, personal accomplishments, and turnover intentions. The authors also assessed the differential relations of PA and NA to these work-related outcomes depending on whether PA and NA were measured as a state or a trait. Trait affectivity refers to a dispositional tendency to experience positive or negative emotions over time, thus being more tied to genetic influences. Conversely, state affectivity refers to what an individual is feeling at a certain moment, often characterized as a mood state (Thoresen et al., 2003). State affectivity is assessed by asking participants how they are feeling right now, whereas trait affect is assessed by asking participants to think about how they have felt over the last few weeks or months.

The authors explored the PA-job satisfaction relation through an extensive literature review and coding process which included 79 studies, totaling 23,419 participants. The true corrected correlation between PA and job satisfaction was found to be .34 with studies measuring PA as a trait and a state combined. Thoresen et al. (2003) then examined state and trait PA separately, and found that in 71 studies (22,148 participants) trait PA correlated with job satisfaction at the .33 level. Conversely, in 11 studies (1,503 participants) state PA correlated with job satisfaction at the .44 level. Finally, Thoresen et al. explored moderator variables that may affect the PA-job satisfaction relation. The authors found that these relations did not differ

in published versus unpublished studies but did find that these relations were stronger when measures of PA and job satisfaction were matched with regard to hedonic tone (e.g., scales assessing positive affect and positive job satisfaction). In summary, the results of this meta analysis overlap somewhat with that of Connolly and Viswesvaran (2000) by suggesting a moderate, positive correlation between PA and job satisfaction.

Finally, a few studies have been published since 2003 which have linked PA and job satisfaction. For example, Judge and Ilies (2004) surveyed a random sample of 74 employees from a southeastern state university and found that trait PA correlated with job satisfaction at the .35 level, and that state PA correlated with job satisfaction at the .49 level. In another study, Niklas and Dormann (2005) examined the correlation of job satisfaction to PA in a sample of 91 office employees across 4 times points, where participants had a mean age of 39 years. At the first time point, the authors found a correlation of trait PA and job satisfaction of .21. For time points 2-4, the authors found correlations ranging from .15-.27 for PA and job satisfaction. Additionally, PA at time 1 was found to correlate with job satisfaction at time point's 2-4 with similar levels, ranging from .17-.28.

Results from the meta analyses and recent articles suggest that positive affect has a moderate relation with job satisfaction. This implies that individuals who experience higher levels of energy, enthusiasm, and concentration are more likely to be satisfied with their work. This is an important finding considering that measures of PA do not take into account the work context. This suggests that individuals with

higher levels of PA are likely to be satisfied with their jobs regardless of their specific work situation.

Work Conditions

The degree to which individuals are receiving what they expect out of their work environment, and how this relates to job satisfaction, has received extensive research throughout the I/O and counseling literatures. The current study attempts to measure three important components of work conditions: need/supplies (NS) fit, person/organization (PO) fit, and perceived organizational support (POS). NS fit refers to the congruence of an individual's needs and work rewards. PO fit refers to the congruence between an individual's values and the organizational culture. POS refers to the degree to which individuals feel supported by their work organization (Cable & DeRue, 2002; Eisenberger et al., 1986). Similar to the PA-job satisfaction relation, meta analyses of the relation among these three work conditions constructs and job satisfaction have been completed, and the results of these will be reported in this section along with published research which has been completed subsequent to the meta analyses.

Kristof-Brown et al.'s (2005) meta analysis explored the relation of both PO fit and NS fit to job satisfaction. PO fit is believed to address the compatibility between an individual and the entire organization they work for, and often this compatibility is operationalized in terms of values (Cable & Derue, 2002; Kristof-Brown et al.). After an extensive literature review and coding scheme, the authors of this study found 65 articles that had correlated PO fit and job satisfaction, with a total of 42,922 participants. The true score correlation among these variables was .44, and

PO fit was found to predict 19% of the variance in job satisfaction. This result indicates that employees who feel their values align with the values of their work organization are more likely to be satisfied with their job. The effect size is moderate.

NS fit pertains to the degree to which an individual's needs, desires, or preferences are met by his or her work environment, and might be considered a measure of how well a person's job provides what they desire out of that job, such as a high salary or flexible work hours (Cable & Derue, 2002; Kristof-Brown et al., 2005). In this meta analysis, Kristof-Brown et al. chose to combine NS fit with demands/abilities fit (the degree to which an individual's abilities match work expectations) into one variable labeled person-job fit. However, while these two variables are likely correlated, it is likely they represent two relatively distinct constructs. Fortunately, the meta analysis results do report how these variables relate to job satisfaction individually. Across 32 studies with a sample size of 8,726, NS fit was separately found to have a true score correlation with job satisfaction of .61. This would indicate that individuals whose work meets their needs are more likely to be satisfied with their job. This is a strong effect size.

Along with these data, the authors also provided information on potential moderators of these relations including how fit was conceptualized, how it was measured, and how studies were designed. The most significant moderator variable was the type of instrument used to measure fit; instruments that measured it directly displayed much stronger results than indirect measures. As an example, the true correlation of PO fit and job satisfaction with direct measures (e.g., having participants rate their job satisfaction) was .56, whereas this value was only .35 with

indirect measures (e.g. having observers rate participant job satisfaction). Another important moderator was the gap in time between measuring fit and measuring job satisfaction. As would be expected, when both of these were measured at the same time their relation was stronger then when measured at different intervals. Using the PO fit studies as an example again, when measured at the same time the true correlation to job satisfaction was found to be .52, while the true correlation to job satisfaction at different time points was .39. Finally, Kristof-Brown et al. examined the correlations among the fit indices, finding that in studies which measured both PO fit and NS fit the average true correlation between these variables was .73, suggesting these are highly overlapping constructs.

Studies completed within the last two years, and not included in the Kristof-Brown et al. (2005) meta analysis, have produced similar results. For example, Lyons and O'Brien (2006) measured the relation of person-job fit and PO fit with job satisfaction in a sample of 204 African American workers, finding that perceptions of fit correlated with job satisfaction at the .66 level. Another study by Ravlin and Ritchie (2006) examined the relation of perceived fit and satisfaction in a sample of 99 employees in a state government agency. The correlation of these variables was found to be .49. The results from the Kristof-Brown et al. meta analysis and these more recent studies suggest that perceptions of fit strongly relate to job satisfaction.

One limitation of studying perceptions of fit as it relates to job satisfaction has been recently discussed by Edwards et al. (2006). In this study, the authors compared three different types of fit indices: atomistic, molecular, and molar. The atomistic approach measures the work environment and person separately in terms of variables

such as values and skills, and then determines how well these person and environment variables match. The molecular approach examines the discrepancy between a person and work environment, and places importance on how large this difference is. Lastly, the molar approach (which is being used in the current study) directly measures participants' perception of the similarity between themselves and their work environment (Edwards et al., 2006). In comparing these three approaches, the authors concluded that individuals place greater weight on their perceptions of the environment when making fit judgments, and when correlating these three indices of fit to job satisfaction found an average value .73. The authors suggested that perhaps measures of perceived fit and perceived job satisfaction are in fact the same construct. If the current study finds a greater model fit is attained when these variables load on one construct, this hypothesis would be support. As such, at the moment this remains an empirical question.

Along with perceptions of fit, the third construct included in the work conditions category is perceived organizational support (POS). In their instrument development study, Eisenberger et al. (1986) defined POS as "global beliefs concerning the extent to which the organization values an individual's contributions and cares about their well being" (p. 501). Lent (2008) theorizes that support (or lack there of) received from one's organization is an important component of overall work conditions. In their meta analysis, Rhoades and Eisenberger (2002) explored the relation of POS to a host of work-related and psychological constructs, including organizational commitment, job performance, affect, and job satisfaction. Across 21 studies with a sample of 5,886 participants, the authors found the corrected mean

correlation of POS and job satisfaction to be .61. This suggests that employees who

feel supported by their organization are much more likely to be satisfied with their

jobs. This is a strong correlation.

The three variables that reflect the work conditions construct in this study

have received a great deal of empirical attention, as is evidenced by the large number

of studies reported in the meta analyses. The next three sections will describe the

relations between job satisfaction and three additional predictor variables (goal

progress, goal/task self-efficacy, and goal support) which, as a group, have received

significantly less empirical attention. While these variables are often used in other

satisfaction models (e.g. Judge, Bono, Erez, & Locke, 2005; Lent et al., 2005; Locke

& Latham, 1990), using each of these variables within the work domain might be

considered a new piece of the puzzle (Lent & Brown, 2006).

Goal Progress

The importance of having goals, and progressing towards these goals, has

been a major area of research within the well-being literature (Diener et al., 1999). In

developing a well being model focused on dispositional optimism, Scheier and Carver

(1985) suggested that the degree to which individuals have positive thoughts about

their future will affect their current subjective well being. A critical component of this

future orientation is the ability to set goals and, most importantly, to make progress

on achieving these goals. For example, in a longitudinal study examining the relation

between goal commitment, attainability, and progress to well being, at one time point

Brunstein (1993) found that goal progress ($r = .55$) related more strongly to well

being than attainability ($r = .37$) or commitment ($r = .30$); these four variables were

not measured together at the other 3 times points in the study. Another study by Sheldon and Elliot (1999) examined the relation of goal progress and self-concordance of goals (i.e. the degree to which goals are consistent with an individual's interests and values) to subjective well being. Across two studies, the authors found each of the variables to correlate significantly with well being, where for goal progress the correlations ranged from .36-.48 and for self concordance the correlations were each .29 Additionally, each study looked at these relations longitudinally, finding time 1 goal progress to relate to time 2 SWB with values of .46 and .57, while time 1 self concordance related to time 2 SWB with values of .19 and .39. While each of these studies looked at general goals with relatively small, homogenous samples, they are provided as examples of a substantial body of well being studies that have found that the degree to which individuals are able to set goals of personal importance, and to progress towards these goals, relates to well being (Diener et al., 1999).

A smaller subset of this literature has explored the relation of goal progress specifically within the work domain to general well being and/or work-specific well being, most often work satisfaction. In their model of work motivation, Locke and Latham (1990) suggested that the ability of employees to have specific goals relates to higher levels of performance and, in turn, higher levels of rewards and satisfaction. Several empirical studies have supported this hypothesis. For example, Ter Doest, Maes, Gebhardt, and Koelewijn (2006) surveyed a sample of 1,036 Dutch employees working at residential care facilities for mentally or physically handicapped individuals. They examined the extent to which four types of goals (personal growth,

physical well being, social relationships, self confidence) were being achieved. The authors found that higher levels of achievement in each of these four goal domains correlated significantly with job satisfaction: personal growth ($r = .42$), physical well being ($r = .36$), social relationships ($r = .27$), and self confidence ($r = .29$).

Harris, Daniels, and Briner (2003) used a daily diary method to track the relation of work goal attainment and importance to levels of work-related affect before and after work. Participants were 22 workers at a call center who completed measures of work affect, goal attainment, and goal importance twice a day, before and after work, for a period of 12 days. The authors found that daily goal attainment related weakly to pleasurable work-related affect before work ($r = .24$), but related strongly to pleasurable work-related affect after work ($r = .49$). Additionally, goal importance was found to serve as a moderator variable: those who rated their goals as more important experienced greater positive work-related affect after work when attaining these goals. These findings point to the strength of the relation between goal progress in the work domain and positive views about one's job. However, this study used a very small sample and studied work-related affect not satisfaction, thus the results need to be considered cautiously.

Wiese and Freund (2005) explored the relation of goal-related progress over a three year period to work satisfaction. The authors surveyed a sample of 88 young professionals in a variety of occupations and tracked their goal progress, goal difficulty, work-related affect, and work satisfaction at two time points. Results revealed that the correlation of time 1 goal progress with time 1 and time 2 work satisfaction was .28 and .29, respectively. Interestingly, the authors found that this

relation was moderated by goal difficulty, such that the more difficult the goals were, the stronger the relation was between goal progress and work satisfaction. Once again, while this study was strong in using longitudinal methods, it did so by using a small sample of workers across a wide range of occupations.

Finally, Maier and Brunstein (2001) longitudinally explored how three aspects of goals (commitment, attainability, and progress) related to job satisfaction and organizational commitment. Using a sample of 81 new workers at 14 different businesses in Germany, the authors first surveyed employees 20 weeks after beginning their new job and then at two additional time points, 4 months and 8 months later. The authors found that goal progress as measured at time 2 related to job satisfaction measured at time 2 ($r = .60$) as well as time 3 ($r = .39$). Additionally, time 3 goal progress was found to relate to time 3 job satisfaction ($r = .53$). The attainability of goals as measured at time 1 was found to relate to job satisfaction at time 1 ($r = .49$), time 2 ($r = .49$), and time 3 ($r = .33$). The degree of goal commitment was found to moderate the relation between attainability and changes in job satisfaction over the course of working. This suggests that employees who have important goals and feel that these goals are attainable will be more likely to experience increased job satisfaction over the course of their job tenure.

The results of these studies suggest that goal progress moderately to strongly relates to work satisfaction, and that the relation of goal-related behavior to work satisfaction may be partially dependent on the degree to which employees have valued goals and the difficulty of these goals. What is particularly important about this finding is that setting valued goals that are attainable might be a modifiable

variable that counselors can work with clients to develop. However, these results need to be considered cautiously as most of the studies used small samples, and none studied teachers specifically. The principle of including modifiable variables into a satisfaction model also extends to the next two major components of Lent and Brown's (2006) theory, work-related self-efficacy and goal support.

Work-Related Self-Efficacy

Self-efficacy refers to the belief that one is capable of performing specific behaviors, including those necessary to achieve specific goals (Bandura, 1986). These beliefs have been heavily researched within vocational psychology for over twenty five years (Betz & Hackett, 1981; Lent, Brown, & Hackett, 1994). Most often, self-efficacy within the career development domain has been studied in relation to vocational interests and goals. In the work satisfaction domain, self-efficacy has often been studied in a general sense. For example, in Judge et al's (2001) meta analysis the authors explored the relation of generalized self-efficacy (i.e. one's estimate of one's fundamental ability to cope, perform, and be successful, p. 80) to work satisfaction. They found a correlation of .38 across 12 studies. However, very little research has been completed exploring the relation of domain specific self-efficacy to work satisfaction. Domain specific self-efficacy could be defined as, "personal beliefs about one's capability to perform particular behaviors necessary to achieve valued school or work goals or, more generally, to perform tasks requisite to success in one's work or school context" (Lent & Brown, 2006, p. 239). Five empirical studies were found to have explored the relation of these variables to satisfaction outcomes.

A 2003 study by Caprara et al. explored the relation of self and collective efficacy beliefs to job satisfaction in a sample of 2,688 teachers in 103 junior high schools in Italy. The authors defined perceived self-efficacy as "teachers' beliefs in their ability to handle effectively various tasks, obligations, and challenges related to their professional role across different settings and relations" (p. 824). Across the total sample, perceptions of self-efficacy were found to correlate with job satisfaction at .56, suggesting that teachers' with higher levels of confidence in their ability to successfully navigate the tasks and challenges within their job were much more likely to be satisfied with their job. A second study surveyed 159 employees in a large maintenance organization and explored the relation between employees' job self-efficacy and job satisfaction (Chen, Goddard, & Casper, 2004). The authors operationalized job self-efficacy as "a person's belief that he or she can perform his or her job well" (p. 353). They reported a correlation between job self-efficacy and satisfaction of .40. However, as this study used a small sample, these results should be considered cautiously. Additionally, it is important to note that for both of these studies the measurement of self-efficacy was specific to work-related tasks, not work-related goals.

In a study that most closely approximates the goals of the present study, Lent et al. (2005) explored a similar social cognitive model of domain satisfaction across two studies. In the first study, Lent et al. surveyed 177 students in introductory psychology courses and assessed the relation of academic self-efficacy to academic satisfaction, where academic self-efficacy was defined as confidence in the ability to perform behaviors required for academic success and to cope with barriers to

academic success. The authors found that self-efficacy and satisfaction within the academic domain were correlated at .58. In the second study, Lent et al. (2005) surveyed 299 undergraduate students, and for this study the authors focused specifically on goal specific self-efficacy as it related to domain satisfaction. Participants were asked to rank order five life domains in terms of importance and also to indicate their most important goal within each of these domains. Based on these responses, participants completed measures of domain satisfaction and goal related self-efficacy, which was defined as confidence in one's ability to achieve a specific goal. Lent et al. (2005) found goal self-efficacy and domain satisfaction to correlate moderately at .39. Finally, a 2007 study by Lent et al. explored a similar social cognitive model of academic satisfaction with a sample of 153 undergraduate engineering majors. The authors found the correlations of academic goal milestone self-efficacy and academic satisfaction to be .58.

Each of these Lent et al. studies contain a number of limitations which temper their application to the current study. First, each study used samples of college students, with one study using participants specifically from psychology courses and another using participants who were engineering majors. It is possible that the relation of self-efficacy related variables to satisfaction will be different for college students and working adults. Secondly, each study used a model of satisfaction pertaining to the social and academic domains, while the current study will focus specifically on the work domain. Finally, each study was cross sectional which limits our understanding of how these variables are related over time.

Given these limitations, the results from the five studies outlined above can inform our understanding of the relation between work-related self-efficacy and work satisfaction. First, it appears that having confidence in one's general abilities or specific abilities as they apply to work-related tasks may relate moderately to strongly with job satisfaction (Caprara et al., 2003; Chen et al., 2004, Judge et al., 2001). Second, within domains that are important to undergraduate students, confidence in achieving goals in these domains has been found to relate moderately to strongly to satisfaction in that domain (Lent et al., 2005; Lent et al., 2007). This finding suggests that within other domains, such as work, a similar relation could exist. In summary, several studies have linked self-efficacy and satisfaction in the work domain, and goal-related self-efficacy and satisfaction within non work domains. Thus, in particular, exploring the relations among work-related goal self-efficacy and work satisfaction in the current study might be considered a new contribution.

Goal Support

The final component of Lent and Brown's (2006) work satisfaction model concerns the degree to which individuals feel supported in the pursuit of their work-related goals. Much like work-related self-efficacy, work-related goal support has received only a limited amount of empirical attention in the job satisfaction literature. This is likely due to the fact that work-related goal support is a very specific variable, as it applies to a particular domain and concerns a particular type of support. Thus, the current section will focus on several studies which have examined components of work-related goal support as they relate to work satisfaction and/or satisfaction in other domains.

Two studies have examined components of work-related support in relation to job satisfaction. First, Babin and Bolles (1996) explored the relation of supervisor support to job satisfaction in a sample of 261 full-time employees in the food service industry. The authors found a correlation of .41 between these two constructs, suggesting that the degree to which employees feel their supervisor is concerned about them correlate moderately with job satisfaction. Second, Baruch-Feldman et al. (2002) explored the relation of various sources of work-related support to job satisfaction, including family support, coworker support, and supervisor support. The authors surveyed a sample of 211 traffic enforcement agents and found that each type of support weakly to moderately correlated with job satisfaction: family support ($r = .17$), coworker support ($r = .19$), and supervisor support ($r = .31, .32$). The results of these studies suggest that work-related support received from supervisors is moderately related to job satisfaction. However, neither of these studies focused on work-related goal support per se and each was cross sectional.

Other studies have examined the relation of goal related support to satisfaction in non-work domains. For example, Brunstein, Dangelmayer, and Schultheiss (1996) examined how goal support in romantic relationships related to relationship satisfaction in a sample 36 married couples. The authors had each participant describe his or her most important individual and relationship goal and then rate the degree to which his or her partner supports this goal, where support was assessed by partner appreciation, encouragement, and participation. For women, significant relations were found between marital satisfaction and both forms of goal support: relationship goal support ($r = .29$) and individual goal support ($r = .53$). For men, these findings were

even stronger, where the correlation of relationship goal support to satisfaction was .57, and the correlation of individual goal support to satisfaction was .76. These findings suggest that in the domain of romantic relationships, goal-related support is moderately to strongly correlated with relationship satisfaction. However, the study only used a small sample of couples and relationship goal support may have differential relations to satisfaction than work goal support.

Finally, the Lent et al. (2005) and Lent et al. (2007) studies discussed previously, which tested similar social cognitive models of satisfaction, explored the role of perceived support in non-work domains. In study 1 of Lent et al. (2005), the authors explored the relation of the five main predictors to satisfaction within academic and social domains, where academic support was operationalized as support received in pursuing a particular major and social support was operationalized as access to others with whom one might socialize or experience a social connection. The authors found academic support to correlate .45 with academic satisfaction and social support to correlate .64 with social satisfaction. In study 2, Lent et al. (2005) instead focused on the availability of goal relevant resources to satisfaction within domains that participants deemed as important. The authors found that the availability of resources, such as skills or money, did not correlate significantly with domain satisfaction ($r = .04$). Finally, Lent et al. (2007) found that environmental support for students' academic progress strongly related to academic satisfaction ($r = .59$). As detailed previously, these results do need to be taken cautiously considering the use of undergraduate samples in non-work-related domains.

The findings of the studies presented above are mixed. In work domains, support received from various sources appears to be weakly to moderately correlated with work satisfaction, with support received from supervisors yielding the strongest relations (Babin & Bolles, 1996; Baruch-Feldman et al., 2002). In academic and social domains, general levels of support were found to moderately to strongly correlate with domain satisfaction, though the availability of general resources had no relation with domain satisfaction (Lent et al., 2005). Finally, in the one study found that looked specifically at goal-related support, this variable was found to strongly correlate with satisfaction in the domain of romantic relationships (Brunstein et al., 1996). In summary, these findings suggest that domain-specific support may relate to domain satisfaction, but the degree to which domain-specific goal support relates to satisfaction specifically in the work domain is an empirical question to be explored in the current study.

Conclusion

This review of the literature exploring the five major predictors in Lent and Brown's (2006) work satisfaction model show that a number of variables (e.g. positive affect, perceived person environment fit, organizational support) have received a considerable amount of research, while others (e.g. work-related self-efficacy, goal support) have received little attention with respect to the work domain. A strength of the current study is that the results may provide much-needed information concerning the role of goal specific variables as they relate to work satisfaction. More specifically, the constructs of goal-related progress, self-efficacy, and support are likely to be the most modifiable variables in the model, and are

variables which counselors can target in their work with clients. In the next section, the additional paths which are hypothesized to connect the five predictor variables within the Lent and Brown (2006) model will be explored along with the mediational hypotheses.

Relations among Predictor Variables and Mediation Hypotheses

In the following six sections, research exploring the relations among each of the remaining hypothesized paths within the Lent and Brown (2006) model will be outlined. Within each of these paths, one predictor variable is hypothesized to mediate the relation to work satisfaction and these hypotheses will also be outlined. The amount of information concerning the relations among these variables varies greatly, and the exploration of these links will include domains other than work. In particular, the 2005 and 2007 Lent et al. articles using similar social cognitive models in non work domains will be discussed at length. The first five sections will explore the bivariate relations and mediation hypotheses among the predictor variables which have received some support, while the final section will discuss the remaining three paths and mediation hypotheses which to date have received no empirical support.

Positive Affect and Work-Related Self-Efficacy

A number of studies have linked positive affect to generalized self-efficacy and non-work domain self-efficacy, and the big 5 personality traits to generalized self-efficacy (Judge & Ilies, 2002), but no studies have explored the relation of work-related self-efficacy to positive affect. For example, Kashdan and Roberts (2006) explored the relation of positive affect to an individual's self-efficacy within the social domain, finding the correlation to be .52. Another study by Caprara and Steca

(2006) explored self-efficacy within the domains of emotional regulation, marriage, and parenting, finding that these variables related moderately to positive affect (*r's* =.32-.42). Machin and Creed (2003) explored the relation of affectivity and generalized self-efficacy in a sample 182 unemployed adults at two times periods during a training program. The authors found that when measured at similar time points, positive affect correlated strongly with generalized self-efficacy (r's = .49, .60).

Finally, in the Lent et al. (2005) article, study 1 explored the links between self-efficacy within academic and social domains to positive affect. The authors found that social self-efficacy correlated moderately with positive affect (*r* = .38) and academic self-efficacy correlated strongly with positive affect (*r* = .49). Additionally, self-efficacy was found to significantly mediate the relation of the positive affect and satisfaction. This suggests that the relation of positive affect to domain satisfaction is partially dependent on an individual's perceived abilities in that domain. Taken together, the results of these four studies suggest that generalized self-efficacy and domain specific self-efficacy moderately to strongly correlate with positive affect, and that self-efficacy may mediate the relation between positive affect and satisfaction. However, only one of these studies explored variables within the work domain and each was cross sectional. The present study will be novel by exploring these relations specifically within the work domain and also focusing on both task and goal-related self-efficacy.

Positive Affect and Goal Support

The second link among the predictor variables concerns the relation between positive affect and goal-related support. As evidenced in discussing the relation of goal-related support to job satisfaction, very little research regarding this variable has been completed within the work domain, and very few studies have linked this variable to positive affect. At a general level, social support has been related to positive affect; these values are typically moderate, ranging from .32-.33 (Lakey & Scoboria, 2005). Specifically within the work domain, a few studies have explored the links among these variables. For example, Swanson and Power (2001) examined four facets of support as they relate to positive affect, finding the following correlations: manager support ($r = .29$), coworker support ($r = .25$), parent support ($r = .17$), and friend support ($r = .11$). Additionally, Wong, Cheuk, and Rosen (2000) found a moderate, negative relation between negative affect and supervisor support in a sample of kindergarten teachers.

Lent et al. (2005) explored the relation of resources received within academic and social environments to positive affect. The authors found that within both domains, positive affect correlated moderately with higher levels of environmental resources ($r = .36, .41$). Additionally, environmental resources were found to significantly mediate the relation of the positive affect and satisfaction. This suggests that the relation of positive affect to domain satisfaction is partially dependent on an individual's perception of support in their environment. The results of these studies suggest that domain-specific support correlates weakly to moderately with positive affect, whereby people who receive more support report higher positive affect levels. However, none of these studies explored these variables in the work domain. The

current study will seek to extend this research by focusing on goal specific support within the work domain.

Work-Related Self-Efficacy and Goal Progress

The hypothesized relation between work-related self-efficacy and goal progress suggests that individuals who feel more confident in achieving their goals and completing their work-related tasks will report higher levels of goal-related progress. As goal-related progress is a relatively understudied variable, the only two studies found to connect this construct to self-efficacy were Lent et al. (2005) and Lent et al. (2007). In Lent et al's (2005) first study, the authors found goal-related progress in academic and social domains to relate strongly to domain specific self-efficacy, with values of .61 and .63, respectively. The second study, which explored the relation of goal specific self-efficacy to goal progress within domains participants deemed as important, found these variables also to be strongly correlated, $r = .52$. Similarly, in Lent et al. (2007), the authors found that coping efficacy and self-efficacy for achieving academic milestones each related strongly to goal progress $(r = .59, 59)$.

Additionally, in each of these studies, goal progress was found to partially mediate the relation of the self-efficacy and satisfaction. This suggests the relation between self-efficacy and domain satisfaction is partially dependent on the degree to which one is progressing upon their goal within that domain. In sum, the results of these three studies suggest that domain self- efficacy and goal specific self-efficacy relate strongly to goal-related progress, and that goal progress may partially mediate

the link of self-efficacy and satisfaction. However, once again, none of these studies were completed specifically within the work domain.

Goal Support and Work-Related Self-Efficacy

Finding a significant relation between work-related self-efficacy and goal support would suggest that individuals who have more support in the pursuit of their goals and tasks would also feel more confident in achieving them (Lent & Brown, 2006). Within social cognitive career theory, a number of studies have found domain specific supports to correlate moderately with domain self-efficacy, with these values ranging from .34-.45 (Lent et al., 2001; Lent et al., 2003; Lent et al., 2005). Empirical research on the connection of goal specific self-efficacy and goal specific support has been less common, although some data is provided by the Lent et al. 2005 and 2007 studies.

Study 1 in Lent et al. (2005) correlated levels of social self-efficacy and academic self-efficacy to environmental resources within each domain. Interestingly, within the academic domain, self-efficacy was found to correlate moderately with environmental resources ($r = .30$), while within the social domain, self-efficacy was found to correlate strongly with environmental resources ($r = .60$). This might suggest that support as it relates to the social domain of one's life is more important in promoting confidence than in the academic domain. Study 2 correlated goal specific self-efficacy and resources which were relevant to the participants' unique goals. These constructs were not found to correlate significantly ($r = .09$), suggesting that resources might have a weaker relation to goal specific self-efficacy or that perhaps the instrument used to assess resources in Study 2 was insufficient. Finally, Lent et al.

(2007) found that both coping efficacy and academic milestone self-efficacy correlated moderately with environmental supports, with values of .37 and .40, respectively.

Each of these studies also hypothesized that self-efficacy would mediate the relation between environmental supports and domain satisfaction. This hypothesis appeared supported within the academic and social domain, as those who felt support to achieve their academic goals had higher levels of self-efficacy and in turn higher academic satisfaction. In summary, the results from these studies suggest that domain-specific self-efficacy moderately to strongly relates to domain support, and that self-efficacy may partially mediate the relation of domain support to satisfaction. However, the relation of goal specific self-efficacy to goal specific support is less clear, especially as it pertains to the work domain.

Goal Support and Goal Progress

The next proposition within the Lent and Brown (2006) model suggests that individuals who receive support for their work-related goals will also be more likely to make progress on these goals. In Study 1 of Lent et al. (2005), the authors found that goal progress within the academic domain correlated moderately with environmental resources ($r = .42$), while goal progress within the social domain correlated strongly with environmental resources ($r = .72$). This suggests that for the social domain in particular, having support is highly related to goal progress. In Study 2, Lent et al. (2005) found that goal progress was not significantly related to environmental resources ($r = .06$), suggesting that the relation of goal progress to support might be weaker when exploring goal specific support as opposed to domain

specific support. Finally, Lent et al. (2007) found that environmental support was strongly correlated with goal related progress in a sample of engineering undergraduate students (r = .55).

Additionally, goal progress is hypothesized to partially mediate the relation between goal support and satisfaction. In the Lent et al. (2005) and Lent et al. (2007) studies, goal progress was found to partially mediate the goal support/satisfaction relation when measuring domain specific support. This suggests that the relation of domain support and satisfaction is partially dependent on how confident individuals feel in completing domain specific activities. In summary, the results from these three studies suggest that domain specific support is moderately to strongly correlated with goal progress and that goal progress may partially mediate the relation of goal support and satisfaction. However, further understanding of the relations among these constructs is needed, considering the moderate to strong relations found in study 1 of Lent et al. (2005) and Lent et al. (2007) in conjunction with the non-significant relations found in study 2 of Lent et al. (2005).

Work-Related Self-Efficacy, Goal Progress, Goal Support and Work Conditions

The final three proposed links and mediation hypotheses in the Lent and Brown (2006) model each involve the work conditions construct, which can be represented by three variables: Perceived organizational support (POS), needs-supplies (NS) fit, and person-organization (PO) fit. Each of these three variables applies specifically to the work domain and as such, results from Lent et al. (2005) and Lent et al. (2007) and other studies outside the work domain are less useful in informing the current study. Additionally, while research on the constructs of fit and

organizational support is vast, very little of this research has been completed in relation to social cognitive variables per se. For example, in both of the meta analyses used to discuss the relation of person-environment fit and POS to job satisfaction, neither reported the results of any studies which linked these variables to self-efficacy, goal progress, or goal support (Kristof-Brown et al., 2005; Rhoades & Eisenberger, 2002). As such, these three final links and mediation hypotheses might be considered the most tentative of the model, and are in particular need of empirical testing.

Conclusion

Exploring the links between each of the five predictor variables in this study is clearly an important step, as very little research has been completed on these links and most of what has been completed is found in the Lent et al. (2005) and Lent et al. (2007) studies. In particular, very little research has been completed within the work domain or completed with goal specific variables. The current study seeks to address both of these issues by surveying currently employed teachers and focusing specifically on their wor-related goal self-efficacy and goal-related support.

Research on Teacher Job Satisfaction

The primary goal of the current study is to test Lent and Brown's (2006) work satisfaction model, and teachers were chosen as the population of interest due to the likelihood that they will have very similar job responsibilities and work characteristics. In addition, when attempting to test any theoretical model, it has been suggested to do initial investigations on homogeneous populations in attempts to maximize internal validity (MacCallum & Austin, 2000). While the Lent and Brown

(2006) model is proposed to be a general model that can apply to all working populations, it is likely that the degree to which satisfaction is predicted by the five core variables is somewhat population specific. Thus the five variables may predict more, or less, variance in satisfaction with teachers than with other populations, which may be related to specific aspects of the teaching profession. In an effort to explore these possible aspects, the following section will review the teacher work satisfaction literature to determine what variables have been found to best predict teacher satisfaction and, if necessary, what additional variables may need inclusion to determine if Lent and Brown's (2006) general model fits this specific population.

A series of studies have been completed to explore the various predictors of teacher work-related outcomes, including stress, performance, tenure, and satisfaction. Much of this initial research focused on demographic predictors, such as age, gender, and teaching experience, and these variables have been shown to be inconsistently related to teacher satisfaction (Kyriacou, 1987; Thompson, McNamara, & Hoyle, 1997). Of the large set of demographic variables available, perhaps the most linked to satisfaction has been school level. In a meta analysis, Thompson et al. (1997) found that school level explained 7.5% of the variance in satisfaction, with teachers in elementary schools reporting greater satisfaction that those in secondary schools.

Research has also examined the psychological and contextual predictors of teacher satisfaction. For example, Thompson et al. (1997) found that role ambiguity and role conflict accounted for 19% and 24% of the variance in satisfaction respectively. These values are somewhat higher than the values Jackson and Schuler

(1985) found in their meta analysis across all occupations, with satisfaction relating to role conflict at $r = -.30$ and role ambiguity at $r = -.31$. Two studies have found that the degree to which teacher's experience their work as meaningful correlates moderately to satisfaction, with correlation values of $r = .32$ and $r = .45$ (Kittel & leyen, 2003; Rasku & Kinnunen, 2003). Other researchers have found that teacher's dissatisfaction relates to a lack of rewards in the workplace and/or lack financial rewards or status of the job itself (Smith & Bourke, 1992; Travers & Cooper, 1993). Finally, self-efficacy has received considerable attention within the teacher satisfaction literature, with several studies finding that teacher's beliefs that they can successfully complete their work tasks are related to job satisfaction (Caprara et al., 2003; Skaalvik & Skaalvik, 2007).

Most significantly, research has found that the work setting itself has a strong relation to satisfaction. For example, Smith and Bourke (1992) surveyed 204 teachers in Australia from six different schools and found that administrative workload, school conditions, and student related stress all served as moderate predictors of satisfaction. In a similar study using 1790 teachers in the United Kingdom, Travers and Cooper (1993) found that 39% of the variance in teacher satisfaction was accounted for by the management/structure of the school environment. Here, teachers who felt supported and autonomous from their administration experienced much greater satisfaction. Ma and MacMillan (2001), in studying the relation between teacher satisfaction and workplace conditions in a sample of 2,202 Canadian teachers, found that administrative support and a positive organizational culture each correlated with satisfaction ($r = .37, .29$). Kittel and Leyen (2003) conducted a similar study with 120

Belgian teachers, finding that support received from administration and job-related demands each correlate moderately with satisfaction ($r = .38$, $-.46$). Using the same instruments, except in this case with a sample of 232 Finish teachers, Rasku and Kinnunen (2003) also found that autonomy and job-related demands served as significant predictors of satisfaction ($r = .37$, $-.46$).

Finally, perhaps the most comprehensive study to examine these variables was completed by the Department of Education in a paper entitled *Job Satisfaction Among America's Teachers: Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation* (Perie & Baker, 1997). This study looked at the degree to which job satisfaction could be predicted by school characteristics, teacher background characteristics, workplace conditions, and teacher compensation. Using a sample 40,728 teachers from private and public schools across all teaching levels, the authors of this study gave teacher's a 25-item questionnaire and assessed how the above classes of variables predicted satisfaction.

Like previous studies, the authors found nonexistent to small correlations with teacher demographics. These variables together only accounted for 5% of the variance in satisfaction. Teachers in private schools tended to be slightly more satisfied than teachers in public schools, and teachers with more experience tended to be slightly less satisfied than those with less experience. After controlling for these demographic variables, the four classes of predictor variables were found to add the following unique variance in predicting satisfaction: administrative support (9%), student behavior and atmosphere (12%), teacher autonomy (9%) and teacher compensation (2%). When the demographic variables and each of these four classes

of variables was entered simultaneously into a regression equation, they were found to account for 22% of the variance in satisfaction. These results suggest that these teacher specific variables not included in the Lent and Brown (2006) model, namely student behavior and atmosphere and teacher autonomy, may be uniquely related to satisfaction.

Each of these studies described above have limitations which temper the degree to which these results may be applied to the current study. First, most of these studies reviewed were completed with teacher populations outside the United States, and it is possible that the work tasks and goals of teachers outside the United States may have a unique impact on the variables that relate to satisfaction. Secondly, none of these studies used a theoretically driven model to assess the multiple predictors of satisfaction. Thus, these studies were unable to ascertain how variables such as the school environment or administrator support may have been mediated or moderated by other predictors. Finally, none of these studies explored how teacher satisfaction may change over time and how particular variables may relate to satisfaction at different time points.

In summary, this brief review serves to highlight the various factors specific to the teacher role which may have an impact on work satisfaction, which may or may not be included in the Lent and Brown (2006) model. For example, several studies found that support from administration and/or the school organization is predictive of satisfaction, and this variable will be measured through the Perceived Organizational Support Scale. Other research found variables to be related to satisfaction which are not included in the Lent and Brown (2006) model, such as work meaningfulness, the

specific school environment, teacher level, autonomy, and job demands. It is likely that most of these variables would fall under the work conditions construct, but as the Lent and Brown (2006) model is theorized to apply to all jobs, the current study will primarily examine workplace conditions that are consistent across all occupations.

Secondarily, in order to not overlook important teacher specific conditions that may affect satisfaction, it was decided to measure teacher level and the two significant variables found in the Department of Education study (student behavior and atmosphere, teacher autonomy) which were not included in the Lent and Brown (2006) model. After testing the Lent and Brown (2006) original model using structural equation modeling, it will be determined if and to what extent these variables add unique variance in predicting teacher satisfaction through a hierarchical regression analysis. If these variables are found to add a significant and meaningful amount of variance in the prediction of satisfaction, this may indicate that a more specific model of satisfaction is needed for teachers.

<div align="center">Testing an Alternative Model</div>

Methodological experts in the field of psychology have recommended the testing of alternative SEM models in addition to the primary model of interest (Weston & Gore, 2006). The purpose of this additional step is to examine the extent to which a more simple model (i.e. less parameter estimates, less latent constructs) and/or a model where the hypothesized paths are arranged in a different configuration serves as a better fit to the data. Theorists have recommended that this be a common practice when testing a statistical model and that the alternative model also be constructed within a theoretical framework.

For the current study, it was decided to test a simpler version of the Lent and Brown (2006) model by removing three paths among the predictor variables which to date have received minimal to no research in the work domain (Figure 2). These include the goal support/work conditions path, the self-efficacy/work conditions path, and the goal progress/work conditions path. As all five of the predictor variables within the Lent and Brown (2006) model had previously been linked to work satisfaction, it was decided to keep each latent construct in the alternative model but to remove paths with no empirical support. By removing these paths, one can test whether the work conditions construct is independently related to work satisfaction and is not related to any of the other predictors in the model. This simplified model hypothesizes that perceptions of the work setting and goal and efficacy related constructs are each uniquely related to satisfaction. Conceptually, this alternative model would separate the work environment and self constructs in the Lent and Brown (2006) model and treat these variables as distinct, as has been proposed by previous theorists (Hackman & Oldham, 1976; Spector, 1997)

General Conclusion

Perhaps the hallmark of Lent and Brown's (2006) work satisfaction model is the integration of affective, social cognitive, and goal related variables into an empirically testable, parsimonious framework. As highlighted in the previous sections, the amount of research completed on each of the specific paths within the model varies greatly. This signifies the need for research which tests some of the more established connections (e.g., fit and satisfaction) in conjunction with those just beginning to be explored within the work domain (e.g., work-related self-efficacy and

satisfaction). Thus, the main goals of this study are fourfold: (a) to determine the relation of each of the five main predictors to work satisfaction, (b) to determine the relations among each of the five main predictors, (c) to determine the unique variance added by each predictor after taking into account all of the other predictors, and (d) to determine the degree to which Lent and Brown's (2006) theoretical model produces good fit to the data in the prediction of work satisfaction. Additionally, this study seeks to examine how this model compares to a simpler, alternative model and also how teacher specific indictors of satisfaction not included in the Lent and Brown (2006) general model, such as autonomy, student behavior, and teacher level, may uniquely relate to satisfaction.

The findings from this study are important for two main reasons. First, by blending variables from several major theories of job or work satisfaction, the results will contribute to a greater understanding of how these constructs work together in predicting satisfaction. Secondly, the results of this study may provide important implications for understanding teacher work satisfaction and what variables are most important among this specific population of workers. For example, most research on teacher satisfaction has used variables such as the school setting, role ambiguity, and teacher level which are very specific to teachers. However, the Lent and Brown (2006) model seeks to take findings from the general satisfaction literature and apply them to this specific population. Thus, this study may allow for a greater understanding of the degree to which general predictors of satisfaction account for variance among teachers.

From a practice perspective, the findings of this study may be of particular interest to counseling psychologists working with clients who are dissatisfied with their current job. Specifically, researchers and theorists have suggested that social cognitive variables are critical in the career development process as they are amenable to change (Brown & Lent, 1996). Thus, counselors may be able to help clients develop valuable work goals and also feel efficacious about achieving these goals, and in turn this might lead to higher levels of work satisfaction even after taking into account affectivity and work conditions. The extent to which these variables predict satisfaction remains an empirical question that will be addressed by the current study.

Chapter III: Method

Participants

The sample for this study consisted of 366 teachers in the North Carolina Association of Independent Schools (NCAIS). This sample represents a subset of 420 participants who began the survey, 54 of whom were removed from data analyses due to having incomplete data (most of these 54 participants had completed less than half of the total survey). Of this group, 295 of the participants were female (81%), 70 were male (19%), and ages ranged from 21-70 with an average of 44.59 ($SD = 11.34$). Additionally, 342 of the participants were White (93%), 6 were Native American (2%), 5 were Latino/a (1%), 4 identified as "other" (1%), 3 were Asian American (1%), and 3 were Black (1%). Participants were split across three levels of teaching: Elementary School ($n = 138$, 38%), Middle School ($n = 133$, 36%), and High School ($n = 93$, 26%). Finally, the teaching experience for participants ranged from 1 to 42 years, with an average of 15.69 years ($SD = 10.06$).

Measures

Job satisfaction. The five-item version of the Brayfield and Rothe (1951) Index of Job Satisfaction was used to measure job satisfaction (Judge, Locke, Durham, & Kluger, 1998, see Appendix B). Participants were asked to respond to each of the five items on a seven-point scale ranging from *strongly disagree* to *strongly agree*. Sample items included, "I feel fairly well satisfied with my present job," and "Most days I am satisfied with my work." The original study to use this five-item version distributed it to 222 university employees, and found a reliability estimate of .88 (Judge et al., 1998). A number of recent studies have used this

measure and reported adequate reliability coefficients ranging from .82 to .95 (Ilies & Judge, 2003; Judge, Erez, Bono, & Locke, 2002; Judge & Ilies, 2004). Additionally, while no factor analytic findings have been reported, this scale has been found to correlate strongly with the Job Descriptive Index ($r = .89$), observer ratings of job satisfaction ($r = .59$), and life satisfaction ($r = .68$) (Judge et al., 1998). For the current study, the internal consistency reliability of this scale was .81.

Teaching satisfaction. The degree to which participants were satisfied with their careers as teachers was measured by the Teacher Satisfaction Scale (TSS; see Appendix C, Lim-Ho & Tung-Au, 2006). This scale was developed based on Diener et al.'s (1985) Life Satisfaction Scale to apply specifically to teacher satisfaction. The instrument contains 5 items, with sample items including, "In most ways, being a teacher is close to my ideal" and "My conditions of being a teacher are excellent". Lim-Ho and Tung-Au (2006) found the internal consistency of this scale to be adequate at .77, with a two week test-retest reliability of .76. Additionally, the authors found this scale to correlate positively with the Brayfield and Rothe (1951) Index of Job Satisfaction ($r = .50$) and Warr's Job Satisfaction Scale ($r = .47$), and to correlate negatively with psychological distress ($r = -.27$) and anxiety ($r = -.34$). For the current study, the internal consistency reliability of this scale was .86.

Positive affectivity. This construct was measured with the positive affect items from the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1988; see Appendix D). Participants were presented with a list of 10 emotions and asked to indicate the extent to which they have felt each of them during the past few weeks. Participants answered each item on a five point scale ranging from *very*

slightly to *extremely*. The ten emotions correspond with positive affectivity, examples

of which are "inspired" and "attentive." In the development study, the internal

consistency reliability coefficient for the Positive Affect (PA) scale was .88. PA

scores correlated negatively with state anxiety (r = -.35) and depressive symptoms (r

= -.36) (Watson et al., 1988). A large number of studies have related affectivity to job

satisfaction and a recent meta-analysis found job satisfaction to correlate .34 with

positive affect (Thoresen et al., 2003). For the current study, the internal consistency

reliability of this scale was .92.

      Work-related goal progress. Progress at work-related goals was measured

with a five-item scale adapted from Lent et al. (2005). The original instrument was

used to assess progress at a particular goal, and was not specific to the work domain.

Sample items include, "I am making good progress on my goal" and "My pursuit of

my goal has been productive." For the current study, participants were asked to think

of their most important work-related goal and to respond to each statement on a five-

point scale ranging from *strongly disagree* to *strongly agree* (see Appendix E).

Additionally, participants were provided the definition of a work goal and also were

given two examples of goals. Lent et al. (2005) found the scale to have good internal

consistency reliability, estimated at .89. Additionally, the scale correlated strongly

with domain-specific goal self-efficacy (r = .46), domain satisfaction (r = .66), and

life satisfaction (r = .42) (Lent et al., 2005). Using this scale, Singley et al. (2004)

found test-retest reliability over a three week period to be .54 for participants' most

important life domain and .71 for participants' third most important life domain. For

the current study, the internal consistency reliability of this scale was .86.

Work-related goal self-efficacy. This construct was measured by a modified goal self-efficacy instrument (Karoly & Ruehlman, 1995), which was used to assess the degree to which participants felt capable of achieving their most important work-related goal. The original instrument was used to assess self-efficacy with regard to a particular goal and was not specific to the work domain. Sample items included, "I possess the necessary skills to attain my goal" and "I have the ability to reach my goal." Similar to the goal progress scale, this scale was adapted for the current study to assess goals within the work domain. Sample items included, "I possess the necessary skills to attain my work goal" and "I have the ability to reach my work goal." Participants were asked to answer each item by considering an *important* work-related goal they had, and were asked to respond to these statements on a four-point scale ranging from *not at all accurate* to *extremely accurate* (see Appendix F). Karoly and Ruehlman (1995) reported reliability estimates for this scale ranging from .80 to .87 for health, interpersonal, and academic goals. Additionally, Karoly and Ruehlman (1995) found goal self-efficacy to correlate with self monitoring ($r = .49$), planning ($r = .38$), and depression ($r = -.50$). He also found the scale to have a two week test-retest reliability of .83. Using this measure, Lent et al. (2005) found goal self-efficacy to relate moderately to domain satisfaction, $r = .39$. For the current study, the internal consistency reliability of this scale was .91.

Work-related goal support. The degree to which participants feel supported in the pursuit of their work-related goals was measured by a modified goal support instrument (Brunstein et al., 1996; see Appendix G). Brunstein et al. (1996) developed a scale to measure *marital partner* goal support which assessed three

dimensions of support, with each dimension containing two items: opportunity (e.g., my partner gives me many opportunities to work on this goal), responsiveness (e.g., my partner shows me that she or he has a lot of understanding for this goal), and assistance (e.g., my partner reliably assists in my attempts to accomplish this goal when I ask her or him to do so). Brunstein et al. (1996) found marital partner goal support to correlate between .34 and .50 with relationship mood and .21 with relationship goal commitment. For the current study, it was decided to use only Brunstein et al.'s (1996) assistance subscale because its content appeared to corresponded most closely with the goal support construct.

The Brunstein et al. (1996) items were adjusted to reflect support received from three sets of individuals in the participants' work environment: fellow teachers, immediate supervisors, and school administrators. As all other constructs in the current study focus specifically on the work environment, it was decided to limit goal support to those individuals who may provide goal support at work. Thus, the scale used for the current study consisted of 2 items assessing each of the three sources of goal support. Sample items are "my fellow teachers reliably assist my attempts to accomplish my goal when I ask them to do so" and "my fellow teachers behave in ways that conflict with my attempts to accomplish this goal". Each item was assessed on a seven point scale, ranging from *completely disagree* to *completely agree*. For the current study, the item correlations for each of the three goal support scales were as follows: teacher support (.45), supervisor support (.55), administration support (.69).

Teacher self-efficacy. The degree to which participants feel efficacious in their jobs as teachers was measured by the Teacher Self-efficacy Scale-Short Form (see

Appendix H, Tschannen-Moran & Woolfolk-Hoy, 2001). Participants were asked to consider their confidence in achieving 12 work-related behaviors and to rate these on a 5-point scale from *none at all* to *a great deal*. This instrument contains three subscales: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Sample items from each are, "How much can you do to motivate students who show low interest in school work", "To what extent can you craft good questions for your students," and "How much can you do to get children to follow classroom rules". In their instrument development study, Tschannen-Moran and Woolfolk-Hoy (2001) found that the three subscales had internal consistency reliability estimates ranging from .81 to .86; the total scale had an internal consistency reliability estimate of .90. Additionally, the authors found the total scale to correlate positively with a previous measure of teacher self-efficacy (r = .48), teacher locus of control (r = .33), and responsibility for student achievement (r = .46). For the current study, the internal consistency reliability of this scale was .87.

Work-related task self-efficacy. The degree to which participants feel efficacious in completing their work-related tasks was measured by the Personal Efficacy Beliefs Scale (PEBS; see Appendix I) (Riggs, Warka, Babasa, Betancourt, & Hooker, 1994). Participants were asked to think about their ability to do the tasks required by their job and then respond to 10 items on a five-point scale ranging from *strongly disagree* to *strongly agree*. Sample items included, "I have confidence in my ability to do my job," and "I have all the skills needed to perform my job very well." Previous research (Lam, Chen, & Schaubroeck, 2002; Schaubroeck, Lam, & Xie, 2000) has found this instrument to have strong internal consistency reliability, with

estimates ranging from .90 to .95. This measure of task self-efficacy has also been

found to correlate positively with job satisfaction (r = .22 to .34) (Lubbers, Loughlin,

& Zweig, 2005). For the current study, the internal consistency reliability of this scale

was .82.

Person-environment fit. The perception of fit between what participants

expect out of their job and what they are actually receiving was measured by two

scales assessing person/organization (PO) fit and needs/supplies (NS) fit (Cable &

Derue, 2002; see Appendix J). Each of these scales contained three items, and

participants were asked to respond to statements on a seven point scale ranging from

strongly disagree to *strongly agree*. Sample items included, "My personal values

match my organization's values and culture" (PO fit), and "There is a good fit

between what my job offers me and what I am looking for in a job" (NS fit). Cable

and Derue (2002) found that the PO fit and NS fit scales each produced strong

internal consistency estimates, ranging from .89 to .91. Additionally, each of these

variables was found to correlate significantly with job satisfaction (.53 -.61),

occupational commitment (.33 -.43), and perceived organizational support (.40 -.53).

For the current study, the internal consistency reliabilities for PO Fit and NS fit were,

respectively, .96 and .92.

Perceived organizational support. The degree to which participants feel

supported by their organization was measured with the Perceived Organizational

Support Scale-Short Form (SPOS) (Eisenberger et al. 1986; see Appendix K). The

SPOS contains the 16 highest-loading items from the original 36-item POS scale, and

each statement is answered on a seven-point continuum from *strongly disagree* to

strongly agree. For each item, the authors advise that researchers insert their specific

organization as a reference point for participants' responses. For instance, two sample

items are, "My school values my contribution to its well-being," and "My school is

willing to help me when I need a special favor." Since all participants in this study

worked in a school setting, "my school" was substituted for "my organization" in all

16 items. The original measure development study found the SPOS to yield adequate

internal consistency reliability estimates, ranging from .80 to .93, and to correlate

with absenteeism ($r = -.28$) (Eisenberger et al., 1986). Over 300 studies have been

completed in the last 20 years using this scale. In a meta-analysis, perceived

organizational support was found to correlate with job satisfaction ($r = .59$),

organizational commitment ($r = .60$), and job involvement ($r = .33$) (Rhoades &

Eisenberger, 2002). For the current study, the internal consistency reliability of this

scale was .95.

 Teacher autonomy. The degree to which participants feel autonomous in their

work-related tasks was measured by the General Autonomy subscale of the Teaching

Autonomy Scale (see Appendix L; Pearson & Hall, 1993). The full version of this

scale contains 18 items with two subscales, General Autonomy and Curriculum

Autonomy. Sample items from the 10 item General Autonomy subscale included, "I

am free to be creative in my teaching approach" and "In my class I have little control

for how the classroom is used". Each item was answered on a 4-point scale ranging

from *definitely false* to *definitely true*. Pearson and Hall (1993) found an internal

consistency reliability estimate of .80. Additionally, Pearson and Mommow (2005)

found general teacher autonomy to correlate negatively with teacher stress ($r = -.28$)

and to correlate positively with teacher satisfaction ($r = .18$), empowerment ($r = .31$), and professionalism ($r = .34$). For the current study, the internal consistency reliability for this scale was .73.

   Student behavior and school atmosphere. The degree to which participants feel students in their school behave well and that they are teaching in a safe environment was measured by the 3 item subscale from the 1997 Department of Education study entitled *Job satisfaction among America's teachers: Effects of workplace conditions, background characteristics, and teacher compensation* (Perie & Baker, 1997). Along with one item assessing parental support, these three items make up the student behavior and school atmosphere construct in the Perie and Baker (1997) study. The item assessing parental support was not included for the current study as this item seemed not to overlap, conceptually, with the other three. This Perie and Baker (1997) study used a sample of 40,728 teachers to assess the degree to which demographic variables and work characteristics predict job satisfaction. For the current study, participants were asked: To what extent is each of the following matters a problem in your school: (a) student misbehavior (e.g. noise, horseplay or fighting in the halls, cafeteria, or student lounge), (b) student apathy, and (c) student violence (see Appendix M). These items were answered on a 4-point scale ranging from *not a problem* to *serious*. In conjunction with parental support, Perie and Baker (1997) combined these items into a scale and found the scale to explain 17% of the variance in job satisfaction. However, no additional reliability or validity information was provided for this scale.

Procedure

      This survey was administered on the internet to teachers in schools that were members of the North Carolina Association of Independent Schools (NCAIS). This school district is composed of 3,500 teachers who are affiliated with 82 different schools across the state. A number of steps were followed to distribute the survey link to as many teachers as possible within this district. First, the online survey was reviewed and approved by the Executive Director of the school system. Next, the Executive Director sent an email with a cover letter (Appendix O) and the survey link itself to the approximately 200 Division Heads within NCAIS. Division Heads are administrators at each of the 82 schools; they supervise teachers at each of the levels within a specific school (i.e., elementary school, middle school, high school). Division Heads were asked by the Executive Director to forward this email on to their respective teachers. Because no listserv existed with the email addresses of all 3,500 teachers, this was the most efficient way to reach as many teachers as possible.

      Upon accessing the survey website, teachers were directed to the first page of the survey which contained an informed consent form briefly explaining the nature of the study and reiterating issues related to confidentiality and participation (Appendix N). If the participant agreed with the consent form, he or she was directed to a subsequent page containing a series of instruments, including a demographic form and measures assessing work satisfaction and each of the independent variables. Each of the instruments included directions on how to respond to the items. As incentives for participation, participants were given the option to enter into a raffle for one of five $100 Amazon.com gift certificates. An additional link was included at the end of

the survey where participants could go to enter their name and email address if they wanted to be in the raffle. This link was in no way connected to the survey itself to ensure confidentiality. Over the course of a one month period, three emails containing the survey link and cover letter were sent from the Executive Director to the Division Heads, with the request that they forward this solicitation email to their teachers. After a one month period the survey website was closed and data were extracted for analyses.

A number of factors were taken into consideration in trying to estimate the response rate. On the most conservative level, 420 teachers within NCAIS took some part of the survey, and this population represents 12% of the total teachers within this school district. However, due to Division Heads having to voluntary forward the survey link on to their teachers, it is very likely that a large group of teachers never received the email at all. Thus, two other techniques were attempted to determine response rate. First, with each email sent to the Division Heads, it was requested that they email the first author to acknowledge that they had indeed forwarded the email to their respective teachers. Unfortunately, only 9 Division Heads responded to this request, thus making it impossible to use this number in calculating an accurate response rate.

Second, the email addresses of teachers who entered their names into the raffle were analyzed to determine the approximate number of different schools who had actually received the survey request via email. Almost all of the email addresses inputted into this database had school names associated with them and a total of 26 schools were represented by these email addresses, which includes 32% of the

schools within this district and approximately 1100 teachers. Using information provided on the NCAIS website, the responding and non responding schools were compared to one another. The responding schools were located across the entire state of North Carolina. However, the majority of responding schools (20 of 26) were located in the greater Charlotte, Greensboro, or Raleigh regions, which is likely due to most of the schools in total (56 of 82) being located in these metropolitan areas. Additionally, of the responding schools, the greatest percentage of respondents were from Charlotte Latin (18%) followed by Charlotte Country Day (7%) and The Cannon School (6%); all three of these schools are located in the Charlotte metropolitan region.

Conservatively, if it is assumed that all of the teachers within each of these schools received the email, this would make the response rate for this survey approximately 38%. However, this estimate is very conservative considering the high likelihood that at various schools only certain levels of teachers (e.g., middle school only) received the email. Since it is impossible to determine precisely which teachers did and did not receive the email (apart from those who began to complete the survey), a 38% response rate seems to be a reasonable estimate.

Chapter IV: Results

Preliminary Analyses

Descriptive statistics were computed for each of the 17 variables measured in the current study. The mean, standard deviation, range, skewness, and kurtosis of each of these variables are presented in Table 1. Statisticians have suggested that one criterion for determining if levels of skewness or kurtosis are meaningful is checking to see if these values exceed the absolute value of 1 (De Carlo, 1997; Micceri, 1989). Five of the variables used in the primary model were negatively skewed to a meaningful degree (job satisfaction, NS fit, PO fit, supervisor support, administration support), while several other variables approached meaningful skewness levels (i.e., goal progress, coworker support, perceived organizational support). These findings suggest that participants had relatively high scores on most of the variables assessed. Additionally, five variables were meaningfully kurtotic (job satisfaction, NS fit, PO fit, positive affect, supervisor support) while several others approached meaningful levels (i.e., teaching satisfaction, administration support, goal progress). Finally, inspection of the teaching satisfaction and teaching self efficacy scale revealed that teachers in this sample had substantially higher levels of satisfaction and self efficacy than the teachers used in the instrument development studies.

These findings indicate that many of the variables within this study are non-normally distributed. As such, it was decided to transform these values to ensure more normal univariate distributions for subsequent analyses. Area transformations were used for all 17 variables. These transformations were completed by rank-ordering the scores for each variable and then taking the z scores of this distribution

Table 1: Descriptive Statistics of the Independent and Dependent Variables.

	Range	*M*	*SD*	Skewness	Kurtosis
Job Satisfaction	11-35	31.16	3.62	-2.00	6.75
Teaching Satisfaction	7-25	20.55	3.49	-.80	.74
Positive Affect	11-50	39.52	6.18	-.64	1.14
Goal Progress	9-25	19.24	3.43	-.93	.99
Goal Self-efficacy	4-16	13.61	2.25	-.56	-.11
Task Self-efficacy	22-50	41.49	5.28	-.67	.54
Teacher Self-efficacy	35-60	50.59	5.34	-.18	-.41
Coworker Support	2-14	11.21	2.46	-.97	.41
Supervisor Support	2-14	11.64	2.58	-1.33	1.31
Administration Support	2-14	11.16	2.84	-1.18	.73
Need-Supplies Fit	3-21	17.54	3.53	-1.67	2.83
Person-Organization Fit	3-21	17.49	3.63	-1.62	2.74
Perceived Organizational Support	27-112	89.95	17.07	-.89	.43
Teacher Autonomy	20.39	32.21	3.40	-.74	.51
Student Misbehavior	1-4	1.77	.70	.60	.19
Student Apathy	1-4	2.04	.71	.30	-.05
Student Violence	1-3	1.10	.31	2.94	7.78

Table 2: Descriptive Statistics of the Transformed Independent and Dependent Variables.

	Range	*M*	*SD*	Skewness	Kurtosis
Job Satisfaction	-2.99-1.44	-.017	.95	.-25	-.40
Teaching Satisfaction	-2.98-1.43	-.017	.95	-.24	-.42
Positive Affect	-.2.99-1.88	-.01	.94	-.11	-.27
Goal Progress	-2.34-1.97	.00	.97	-.06	-.30
Goal Self-efficacy	-2.99-.91	-.04	.88	-.53	-.43
Task Self-efficacy	-2.98-2.00	.00	.98	-.09	-.23
Teacher Self-efficacy	-2.76-1.91	.00	.98	-.09	-.29
Coworker Support	-3.00-1.31	-.02	.94	-.30	-.41
Supervisor Support	-2.64-1.05	-.03	.91	-.44	-.51
Administration Support	-2.54-1.22	-.03	.93	-.33	-.53
Need-Supplies Fit	-2.78-1.33	-.02	.94	-.29	-.42
Person-Organization Fit	-2.77-1.13	-.03	.92	-.40	-.42
Perceived Organizational Support	-2.98-1.97	.00	.99	-.09	-.25
Teacher Autonomy	-2.98-2.76	.00	.98	-.05	-.12
Student Misbehavior	-.90-2.45	.02	.82	.48	-.20
Student Apathy	-1.26-2.32	.01	.85	.23	-.11
Student Violence	-.12-2.98	.05	.54	2.83	6.60

(McDonald, 1999). Although only approximately half of the variables were meaningfully skewed or kurtotic, it was decided to transform all values so that all variable scores would be on the same metric. The descriptive information for the transformed scale scores is presented in Table 2. After these scores were transformed, each variable used in the tested model was found to be more normally distributed and these transformed values were used in all subsequent analyses. The correlations of all of the individual scales used in the current study are presented in Table 3. Though these values are not used to examine the primary hypotheses of the current study, job satisfaction and teacher satisfaction were found to moderately to strongly correlate with positive affect, self-efficacy, goal progress, goal support, and the work conditions constructs. Finally, using the transformed scale values, item parcels were created for the positive affect and goal progress scales by randomly assigning half of the items from each of these scales to one of two parcels.

Confirmatory Factor Analyses

Prior to testing the structural model presented in Figure 1, a confirmatory factor analysis (CFA) using EQS 6.1 (Bentler & Wu, 2005) was conducted to determine if the observed variables in the hypothesized model each loaded on their presumed latent constructs and if the latent constructs covaried among themselves as expected. This process is referred to as testing the measurement model and serves two main purposes for the current study. First, this process tests the composition and structure of the latent constructs. Assuming that the hypothesized six factor structure is confirmed, the resulting latent factors can be used to examine the bivariate relations among these constructs, which are the focus of hypotheses 1-8. Second, the formation

Table 3: Correlations among Independent and Dependent Variables.

	M	SD	Skew.	Kurt.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Job Satisfaction	31.16	3.62	-2.00	6.75	-												
2. Teaching Satisfaction	20.55	3.49	-.80	.74	.64	-											
3. Positive Affect	39.52	6.18	-.64	1.14	.58	.53	-										
4. Goal Progress	19.24	3.43	-.93	.99	.36	.29	.37	-									
5. Goal Self-efficacy	13.61	2.25	-.56	-.11	.26	.25	.38	.39	-								
6. Task Self-efficacy	41.49	5.28	-.67	.54	.30	.30	.37	.20	.51	-							
7. Teacher Self-efficacy	50.59	5.34	-.18	-.41	.38	.41	.53	.28	.37	.50	-						
8. Coworker Support	11.21	2.46	-.97	.41	.35	.38	.28	.34	.26	.12	.27	-					
9. Supervisor Support	11.64	2.58	-1.33	1.31	.35	.36	.26	.27	.19	.09*	.13	.48	-				
10. Administration Support	11.16	2.84	-1.18	.73	.46	.41	.39	.40	.27	.10*	.24	.55	.65	-			
11. NS Fit	17.54	3.53	-1.67	2.83	.65	.69	.45	.33	.22	.13	.27	.42	.45	.55	-		
12. PO Fit	17.49	3.63	-1.62	2.74	.51	.52	.35	.23	.17	.11	.26	.35	.38	.50	.67	-	
13. POS	89.95	17.07	-.89	.43	.55	.56	.40	.26	.16	.12	.34	.39	.49	.68	.62	.67	-

Note: N = 361. NF Fit = Needs-Supplies Fit, PO Fit = Person-Organization Fit, POS = Perceived Organizational Support
* p > .05.

of these latent constructs allows one to test the structural paths among the constructs, which are the focus of hypotheses 9-18.

A six factor CFA was conducted according to the hypothesized model (See Figure 1). The CFA was modeled with correlations among each of the six factors and tested with the covariance matrices and maximum likelihood (ML) estimation. Given evidence of multivariate non-normality (Mardia's normalized estimate = 10.67), robust ML estimation was employed. For each factor, one observed variable loading was fixed to 1 and the other loadings were freely estimated. As shown in Figure 1, teacher satisfaction and job satisfaction were expected to load on the work satisfaction factor; perceived organizational support, NS fit, and PO fit were expected to load on the work conditions factor; goal progress item parcel 1 and goal progress item parcel 2 were expected to load on the goal progress factor; task self-efficacy, goal self self-efficacy, and teaching self-efficacy were expected to load on the self-efficacy factor; teacher support, supervisor support, and administration support were expected to load on the goal support factor; and positive affect parcel 1 and positive affect parcel 2 were expected to compose the positive affect factor.

All structural equation modeling analyses in this study (i.e., the CFA variations and the structural model tests) were tested with the following goodness of fit indices: χ^2, comparative fit index (CFI), and root mean square error of approximation (RMSEA). A non-significant χ^2 will suggest that the model fits the data adequately, though the larger the sample size, the more likely it is that the χ^2 will be significant. The CFI test will determine if the hypothesized model is a better fit to the data than a null model, where no relations among the constructs are expected.

Values of CFI range from 0 to 1, and researchers have suggested a minimum cutoff of .95 (Hu & Bentler, 1999). Finally, RMSEA assesses the degree of complexity in the model and whether or not a simpler solution is warranted. Values closer to 0 indicate a better fit, where maximum cutoffs have been recommended at the .06 level (Hu & Bentler, 1999). Additionally, the Lagrange Multiplier (LM) test was used to detect unmodeled error covariances and variable-factor loadings that might improve model fit.

Results of the six factor CFA are shown in Table 4. The model produced a significant Sartorra-Bentler (S-B) χ^2 statistic (197.59, df = 75, $p < .001$) and satisfactory values of CFI (.95) and RMSEA (.07), suggesting good fit of the measurement model to the data. An alternative, five factor model was also tested and compared against the six factor model. Specifically, Edwards et al. (2006) had argued that perceptions of work conditions and work satisfaction may, in fact, be manifestations of the same underlying construct. In the five factor model, therefore, job satisfaction, teacher satisfaction, NS Fit, PO Fit, and perceived organizational support were all set to load on a common latent factor. This model produced a significant S-B χ^2 (264.32, df = 80, p < .001), a CFI value of .92, and RMSEA value of .08. Direct comparison of the five and six factor models with the corrected S-B χ^2 difference test (Satorra & Bentler, 2001) revealed that the six factor model yielded significantly better fit to the data (Δ S-B χ^2 = 63.31, $p < .001$).

Although the six factor model was found to be both tenable and to offer better fit than the comparison model, inspection of the LM statistics revealed two sets of error covariances that could substantially improve model fit, specifically, the

Table 4: Fit Indices for the Measurement and Structural Models.

Model	S-B χ^2	df	CFI	RMSEA	χ^2 difference	Comparison
Measurement						
5-factor	264.32*	80	.92	.08	---	
6-factor	197.59*	75	.95	.07	63.31*	5 vs. 6-factor
6-factor (rev.)	137.38*	73	.97	.05	---	
Structural						
Target Model	148.14*	75	.97	.05	11.87	Target vs. meas.
Alternative	346.10*	78	.89	.10	260.84*	Target vs. alt.

Note. $N = 338$. S-B = Sartorra-Bentler. CFI = comparative fit index. RMSEA = root mean square error of approximation. χ^2 difference = difference in corrected Sartorra-Bentler chi square between comparison models. 6-factor = satisfaction, positive affect, goal progress, self-efficacy, work conditions, environmental support represent six correlated latent dimensions. 6-factor (revised) = six correlated latent dimensions with the addition of two correlated errors (need-supplies fit and perceived organizational support; administrative support and perceived organizational support). 5-factor = similar to 6-factor model but with satisfaction and work conditions set to load on a single latent dimension. Target SCCT = target theoretical model. Alternative = omission of paths among work conditions and other predictors of satisfaction.

*p < .001.

covariances among the errors of (a) perceived organizational support and NS Fit and (b) perceived organizational support and administrative support. Such covariances were theoretically plausible because they occurred either among variables of the same factor (work conditions) or among variables with overlapping content (organizational and administrative support). The six factor model was, therefore, respecified to take these covariances into account. Compared to the original version, the revised six factor model yielded a substantiality lower S-B χ^2 value (137.38, $df = 73$, $p < .001$) and stronger fit indicators on the CFI (.97) and RMSEA (.05) fit indices. It was, therefore, used as the basis for the subsequent structural model tests.

Table 5 contains the variable-factor loadings, and Table 6 shows the correlations among the latent factors, from the revised six factor model. Each variable was found to load as expected on the appropriate factor. The latent factor correlations were used to test hypotheses 1-8. Consistent with hypotheses 1-5, work satisfaction correlated moderately to strongly with goal progress (.42), work conditions (.89), self-efficacy (.60), goal support (.67), and positive affect (.72). Hypotheses 6-8 were also supported in that positive affect correlated positively with self-efficacy (.65) and goal support (.45); self-efficacy correlated positively with goal progress (.44), work conditions (.35), and goal support (.34); and goal support correlated positively with goal progress (.67) and work conditions (.71).

Structural Model Tests

Based on the revised six factor measurement model, the primary and alternative structural models, specifying somewhat different relations among the predictors of work satisfaction, were tested. As before, the models were tested using

Table 5: Factor Loadings for the Hypothesized 6-Factor Model.

	Work Satisfaction	Positive Affect	Goal Progress	Self-efficacy	Goal Support	Work Conditions
Job Satisfaction	.79					
Teaching Satisfaction	.81					
Positive Affect Parcel 1		.92				
Positive Affect Parcel 2		.94				
Goal Progress Parcel 1			.91			
Goal Progress Parcel 2			.79			
Goal Self-efficacy				.63		
Task Self-efficacy				.72		
Teacher Self-efficacy				.71		
Teacher Support					.65	
Supervisor Support					.71	
Administration Support					.87	
Need-Supplies Fit						.92
Person-Organization Fit						.75
Perceived Organizational Support						.85

Table 6: Correlations among the Six Latent Constructs.

	1	2	3	4	5	6
1. Work Satisfaction	-					
2. Goal Progress	.42	-				
3. Work Conditions	.89	.36	-			
4. Self-efficacy	.60	.44	.35	-		
5. Goal Support	.67	.49	.71	.34	-	
6. Positive Affect	.72	.40	.49	.65	.45	-

Note: All correlations significant at the $p < .01$ level.

the covariance matrices and the robust ML estimation procedures of EQS 6.1. The

structural models allow us to examine the degree to which each of the 5 latent

constructs predict unique variance in work satisfaction; the degree to which the

relation of particular independent variables to work satisfaction are mediated by other

variables; and the degree to which the primary and alternative models fit the data.

The primary, or target, model was found to yield an S-B χ^2 statistic of 148.14

($df = 75$, $p < .001$), with a CFI of .97 and a RMSEA of .05 (see Table 4). The CFI and

RMSEA values, which are the main fit indices used in this study, meet Hu and

Bentler's (1999) criteria for good model-data fit, thereby supporting Hypothesis 18.

The alternative structural model (which tested the possibility that work conditions

would yield a direct path to work satisfaction and no relations to the other predictors)

produced an S-B χ^2 statistic of 346.10 ($df = 78$, $p < .001$), a CFI of .89, and an

RMSEA of .10. These values indicated less adequate model fit, according to Hu and

Bentler's (1999) criteria. In addition, direct comparison of the two structural models

indicated that the target model offered significantly better fit to the data (Δ S-B $\chi^2 =$

260.84, $p < .001$). The target structural model also did not differ significantly from

the measurement model in terms of relative model fit (Δ S-B $\chi^2 = 11.87$, $p > .05$),

further supporting the adequacy of its representation of the relations among the

constructs. Path coefficients for the target and alternative structural models are

shown in Figures 3 and 4, respectively.

As seen in Figure 3, hypotheses 9a, 9c, and 9d were supported in that positive

affectivity, self-efficacy, and work conditions each added unique variance in the

prediction of work satisfaction. The bulk of the unique variance in work satisfaction

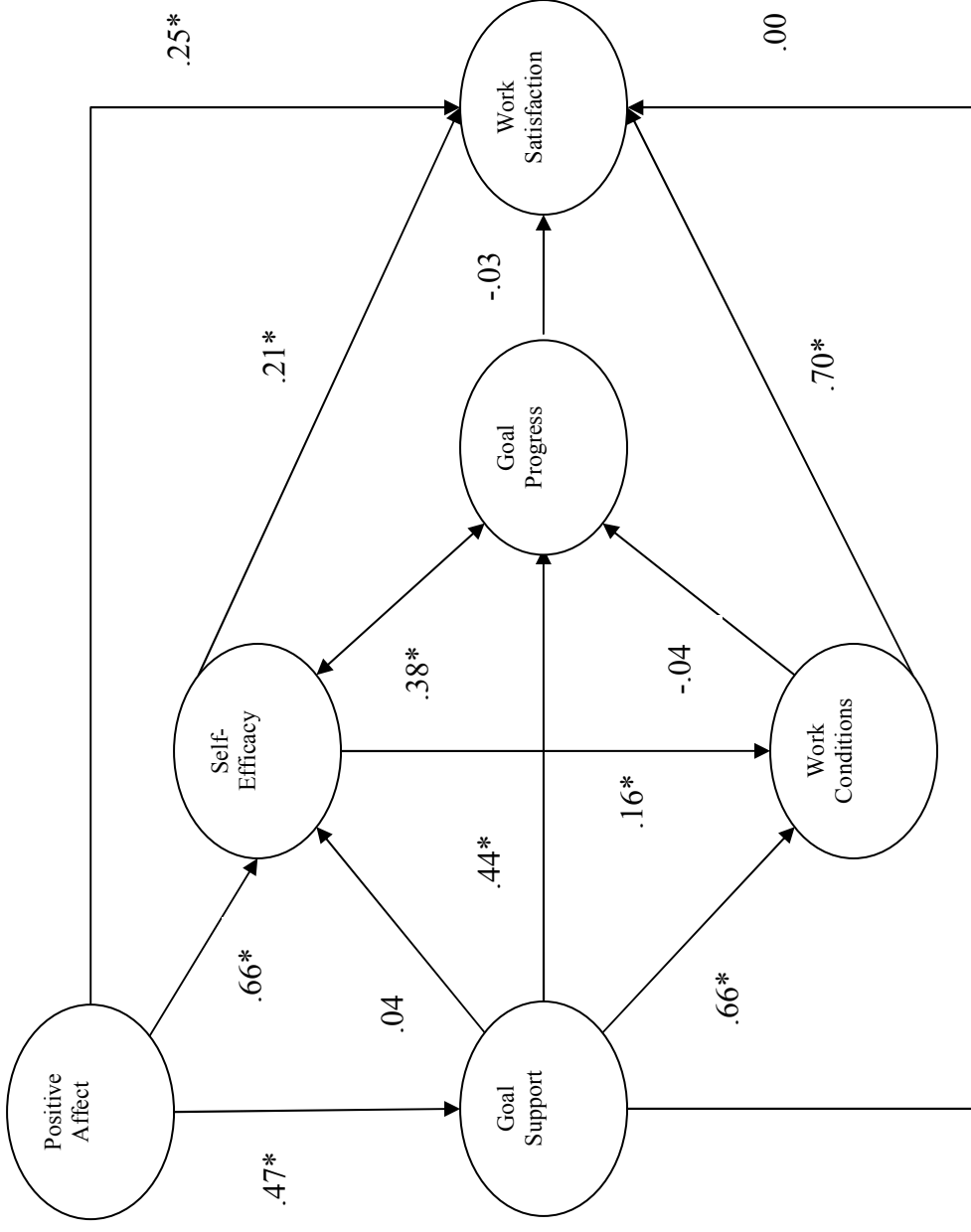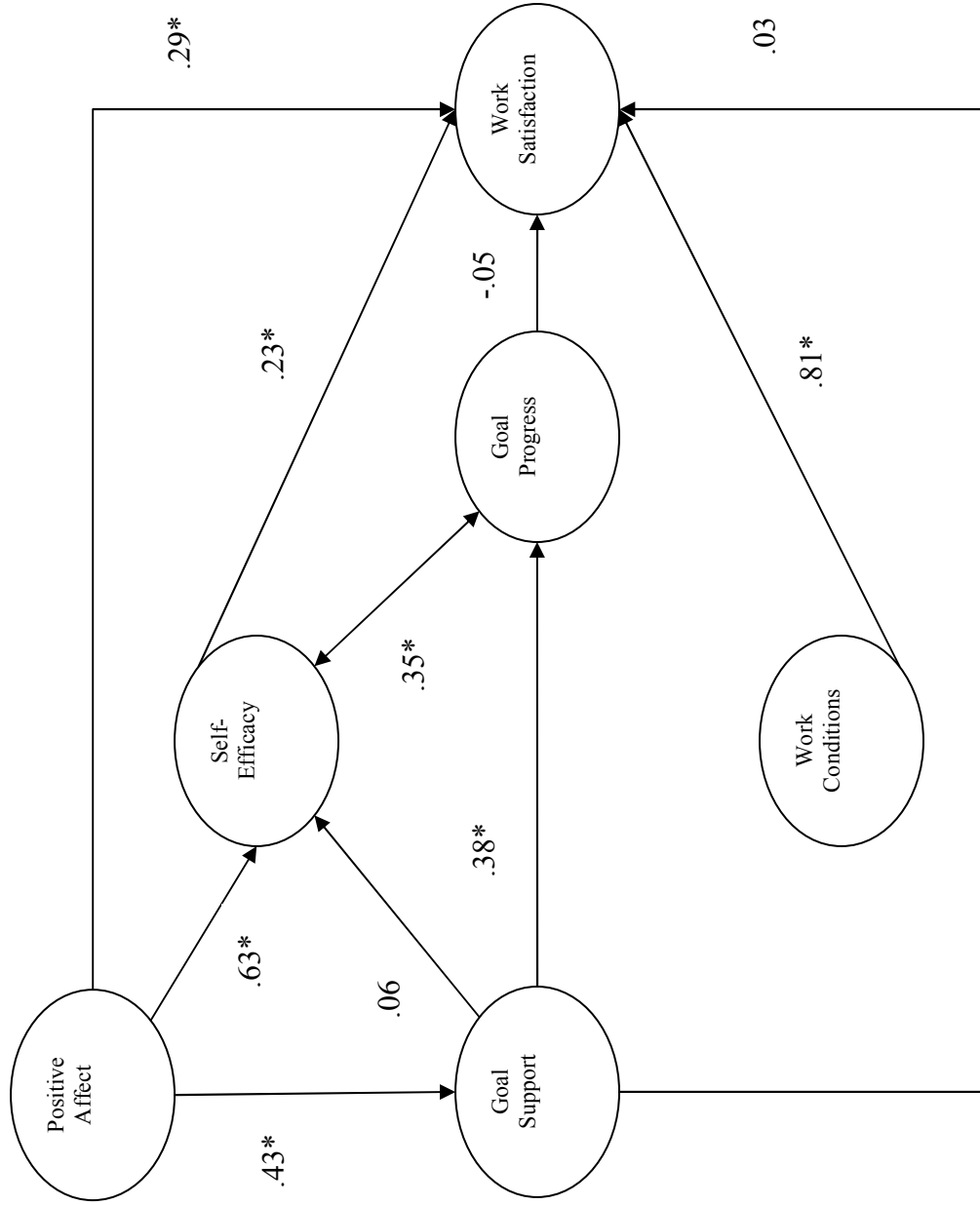Figure 3. Parameter estimates for the structural model. * p < .05.

Figure 4. Parameter estimates for the alternative structural model. * p < .05.

was contributed by work conditions; positive affect and self-efficacy yielded path coefficients to work satisfaction of more modest and similar magnitude. The findings did not, however, support hypotheses 9b and 9e in that goal progress and goal support did not add unique variance to the prediction of work satisfaction after accounting for the other predictors in the model. Taken together, the five independent variables were found to account for 91% of variance in work satisfaction.

Mediator Hypotheses

Hypotheses 10-17 stated that various constructs in the model act as mediators in the prediction of work satisfaction. According to Frazier, Tix, and Barron (2004), in order to test a mediator hypothesis, one must show that (a) the predictor is correlated with the criterion variable, (b) the predictor is correlated with the mediator, (c) the mediator is correlated with the criterion, and (d) that after the mediator variable is controlled for, the relation of the predictor to the criterion variable is substantially reduced or eliminated. These conditions for establishing mediation, however, assume a trivariate scenario (that is, one predictor, one mediator, and one dependent variable). The current study involved a more complex multivariate situation in which there were multiple predictors and mediators of work satisfaction, all assumed to be operating simultaneously and jointly. To test mediation within the context of the full model, the pattern of path coefficients in the target model (Figure 3) was examined.

Hypothesis 10 stated that goal progress would partially mediate the relation of self-efficacy to work satisfaction. As seen in Figure 3, although there was a significant path from self-efficacy to goal progress (.38), the path from goal progress

to work satisfaction was small and non-significant (-.03), thereby failing to support Hypothesis 10. Hypothesis 11 stated that goal progress would partially mediate the relation of goal support to work satisfaction. Once again, the predictor was significantly related to goal progress (.44), but goal progress did not relate significantly to work satisfaction, suggesting a lack of support for the hypothesis. Hypothesis 12 stated that goal progress would mediate the relation of work conditions to work satisfaction. This hypothesis was not tenable because neither set of relevant relations (work conditions to goal progress, -.04; goal progress to work satisfaction, -.03) was significant.

Hypothesis 13 stated that self-efficacy acts as a mediator variable in the relation of goal support to work satisfaction. The findings did not support this hypothesis because, although there was a significant path from self-efficacy to work satisfaction (.21), the path from goal support to self-efficacy was small and non-significant (.04). Hypothesis 14 posited that self-efficacy mediates the positive affect-work satisfaction relation. Support was found for this hypothesis: the paths from positive affect to self-efficacy (.66) and from self-efficacy to work satisfaction (.21) were each significant, and the direct path from positive affect to work satisfaction (.25), while significant, was substantially lower than in the unmediated (measurement) model (.72). This pattern is consistent with partial mediation.

Hypotheses 15 and 16 concerned the extent to which work conditions acts as a mediator variable in the relation, respectively, between goal support and work satisfaction and between self-efficacy and work satisfaction. The findings were consistent with both of these hypotheses. Regarding hypothesis 15, the links from

goal support to work conditions (.66) and from work conditions to work satisfaction (.70) were significant, and the direct path from goal support to work satisfaction was reduced from .67 (in the measurement model) to 0 (in the structural model), thereby suggesting full mediation. In testing hypothesis 16, it was observed that the paths from self-efficacy to work conditions (.16) and from work conditions to work satisfaction (.70) were each significant, and the direct relation of self-efficacy to work satisfaction was substantially reduced but not eliminated (.21) in the structural model compared to .60 in the measurement model. This pattern is consistent with partial mediation.

Finally, hypothesis 17 stated that goal support would partially mediate the relation of positive affect and work satisfaction. The findings regarding this hypothesis were mixed. Although the path from positive affect to goal support (.47) was significant, the path from goal support to work satisfaction was 0, suggesting a lack of mediation. On the other hand, part of the relation of positive affect to work satisfaction was mediated by the more circuitous set of paths from positive affect to goal support (.47), from goal support to work conditions (.66), and from work conditions to work satisfaction (.70). Moreover, the direct path from positive affect to work satisfaction was reduced in the context of the full model compared to the CFA (.25 vs. .72), which is consistent with partial mediation, albeit not via the specific pathway that had been posited.

In sum, the results from the structural model and mediator analyses reveal mixed support for the hypotheses. The Lent and Brown (2006) proposed structural model was found to be a good fit to the data, and was found to be a better fit than an

alternative model which treated work conditions as independent from the other predictors. Within the Lent and Brown (2006) model, work conditions, self-efficacy, and positive affect were each found to add unique variance in the prediction of work satisfaction, while goal progress and goal support did not add unique variance after accounting for the other variables in the model. Additionally, work conditions was found to fully mediate the goal support-work satisfaction relation, work conditions was found to partially mediate the self-efficacy-work satisfaction relation, and self-efficacy was found to partially mediate the positive affect-work satisfaction relation. Finally, the positive affect-work satisfaction relation may be partially mediated by its pathway through goal support and work conditions.

Supplemental Analysis

A supplemental hierarchical regression analysis was conducted to explore the extent to which the teacher level (e.g., middle, middle school, high school), teacher autonomy, and student behavior/school atmosphere variables contribute unique variance in predicting job satisfaction over and above the five predictors in the Lent and Brown (2006) model. As these teacher specific variables were not included in the hypothesized measurement or structural models, it was decided to use a multiple regression analysis with the observed variables to examine this research question. Here, what we were interested in was the extent to which this one set of teacher specific variables relates to satisfaction after controlling for the complete set of variables within the Lent and Brown (2006) model. As seen in Table 7, the 5 predictor variables in the Lent and Brown (2006) model were found to account for 56% of the variance in job satisfaction in the first step of the equation. After

controlling for this set of variables, the teacher-specific variables were found to

account for an additional 1% of the variance in work satisfaction at the second step of

the equation. An F change value between the two models of 1.00 was found to be non

significant ($p = .42$).

Table 7: Incremental Variance Added in Work Satisfaction by Teacher Specific

Variables after Accounting for the Variables in the Lent and Brown (2006).

Variable	R	R^2	ΔR^2	ΔF	F
Step 1: Lent & Brown (2006) Predictors	.75	.56			34.28*
Goal Progress					
Need-Supplies Fit					
Person-Organization Fit					
Perceived Organizational Support					
Positive Affectivity					
Goal Self-efficacy					
Task Self-efficacy					
Teacher Self-efficacy					
Teacher Support					
Supervisor Support					
Administration Support					
Step 2: Teacher Specific Variables	.76	.57	.01	1.00	24.50*
Autonomy					
Teacher Level					
Student Apathy					
Student Misbehavior					
Student Violence					

*$p < .01$

Chapter V: Discussion

The current study explored the Lent and Brown (2006) model of work satisfaction with a sample of private school teachers who have been working in the teaching profession for an average of 16 years. Based on the measures of central tendency, on the whole participants in this study tended to be highly satisfied with their jobs, tended to report a strong fit between their personal values and the values of their organization, tended to report a strong fit between their personal needs and what is supplied by their organization, and tended to report high levels of supervisor and administration support. These results suggest that this particular sample of teachers have more positive feelings about their work and work environment than other samples of teachers which have been studied previously (Perie & Baker, 1997).

The results of the 5-factor and 6-factor confirmatory factor analyses revealed important information about the structure of the variables within the Lent and Brown (2006) model. As hypothesized, a stronger model fit was found when the work satisfaction and work conditions constructs were treated as distinct factors within the model. While these two latent constructs were found to be highly correlated, the results from this study may indicate that these constructs should be treated as separate when studying them in tandem. Specifically, and opposed to Edwards et al.'s (2006) argument, future researchers may want to treat perceptions of work satisfaction and perceptions of work conditions (e.g., organizational support, PO fit, NS fit) as distinct, yet highly overlapping, constructs in models of work satisfaction.

The factor structure of the variables in the Lent and Brown (2006) model suggest that all observed indicators loaded strongly on their hypothesized latent

construct. In the case of the positive affect and goal progress constructs, these latent

constructs were based on item parcels from one scale and thus finding such strong

factor loadings would be anticipated. In the case of the self-efficacy, work conditions,

work satisfaction, and goal support constructs, these were each composed of observed

indicators from separate scales. However, modification indices suggested that model

fit could be improved further by accounting for the error covariances among (a)

perceived organizational support and NS Fit and (b) perceived organizational support

and administrative support. These covariances reflect the intuitively reasonable

assumption that feeling supported by one's organization should be related to feeling

supported by one's administration and feeling that one's needs are being met by the

organization. They also reflect content overlap among the measures of these

constructs. As such, these error covariances were included when testing the structural

model.

The structural model, which consisted of the six hypothesized variables in the

Lent and Brown (2006) model, was used to examine the direct and indirect effects of

self-efficacy, work conditions, goal progress, positive affect, and goal support on

work satisfaction. After accounting for the other variables within the model, goal

progress and goal support were not found to add unique variance in the prediction of

work satisfaction. Though each of these variables produced moderate to strong

bivariate relations with work satisfaction, which is in line with past research findings

(e.g., Babin & Bolles, 1996; Baruch-Feldman et al., 2002; Maier & Brunstein, 2001;

Wiese & Freund, 2005), results from the full model test suggest that goal progress

and goal support play little direct role in the work satisfaction of teacher's in this

study. As opposed to past research which looked mainly at bivariate relations, the current study adds to the literature by showing that the relationship of goal progress to work satisfaction may not be significant when accounting for work conditions, self-efficacy, and positive affect; the relationship of goal progress to work satisfaction was not found to be mediated by other variables within the model. However, goal support may have an indirect relation to work satisfaction through its relation with work conditions. For teachers in the current study, it may be that feeling supported in their most important work goal leads to increased perceptions of work-related fit and organizational support which, in turn, leads to greater work satisfaction.

The other three variables in the model, positive affect, self-efficacy, and work conditions, were found to add unique variance in the prediction of work satisfaction. The relation of self-efficacy to work satisfaction is in line with past findings in the academic, social, and work domains (e.g., Caprara et al., 2003; Judge & Bono, 2001; Lent et al., 2005; Lent et al. 2007), and suggests that teachers who have more confidence in performing their work-related tasks and fulfilling their work-related goals may be more satisfied with their work. This is the first study of which the author is aware that specifically included goal self-efficacy in the prediction of work satisfaction along with task self-efficacy and general teacher self-efficacy. As such, it may be just as important for teachers to have confidence in achieving their work goals as confidence in their general work-related tasks. Additionally, as self-efficacy is viewed as a modifiable variable (Lent & Brown, 2006), this finding may have important implications for counselors working with teachers who are dissatisfied with their jobs.

Two constructs which tend to be less modifiable are positive affect and work conditions. The finding that positive affect uniquely relates to work satisfaction is in line with findings from past meta analyses (Connolly & Viswesvaran, 2000; Thoresen et al., 2003), and suggests that people who in general have a positive disposition are more likely to have positive attitudes towards their work. The strong relation found between perceptions of work conditions and work satisfaction, even after controlling for the other variables in the model, suggests that perceptions of fit and organizational support may be the most important predictors of satisfaction with this population. This finding supports prior research where both fit perceptions (Kristof-Brown et al., 2005) and perceived organizational support (Rhoades & Eisenbeger, 2002) have been found to be strongly correlated with work satisfaction across a large number of studies. What this suggests is that teachers who feel supported by their school and feel that their work is a strong fit for their values and needs are highly likely to be satisfied with their jobs. As compared to the other variables within the Lent and Brown (2006) model, work conditions stands apart in the strength of its relation with work satisfaction and it is likely that the relation of many of the other variables in the model are diminished due to the large amount of variance accounted for by this construct.

Taken together, the five predictor variables within the Lent and Brown (2006) model were found to account for 91% of the variance in work satisfaction. Additionally, teacher specific variables such as school conditions and autonomy were not found to add significant variance in the prediction of satisfaction above and beyond the variables within the primary model. These results indicate that for this

particular sample, most of the variance in work satisfaction is attributable to general work, personality, and self constructs and is not necessarily tied to the teaching-specific variables of school conditions and autonomy. As such, this model may be applicable to those in other professions. The large percentage of variance accounted for in work satisfaction may be attributable to the integrative nature of the model (i.e., the predictors in the model had each been found to be moderately to strongly linked to work/domain satisfaction in prior research) and the fact that the structural equation modeling analysis controlled for measurement error.

In sum, the results of this study suggest that gaining a strong understanding into teacher work satisfaction can best be completed by assessing their work-related self-efficacy, perceptions of work conditions, and levels of positive affect. Teachers who feel confident in accomplishing their work-related tasks and goals, espouse strong work-related fit, feel supported by their organization, and have a general positive disposition tend to be the most satisfied with their work. Along with the meditational findings, the results of the present study provide partial support for the general structure of the Lent and Brown (2006) model in that three of the five proposed paths were significant and three of the eight proposed meditational paths were confirmed.

Chapter VI: Implications

Research Implications

The results of the current study may have implications for future researchers studying work satisfaction. First, the results of the Lent and Brown (2006) model point to the importance of studying predictors of work satisfaction within the context of a unified model rather than only in bivariate form, where predictors are examined in isolation from one another. For example, according to their bivariate relations with work satisfaction, goal progress and goal support would be viewed as moderately to strongly related with satisfaction. However, in the context of the full Lent and Brown (2006) model, the relation of these variables to work satisfaction becomes insignificant when including work self-efficacy, work conditions, and positive affect. These results speak to the notion that specific variables that are hypothesized to predict satisfaction may in fact be subsumed by other, more prominent predictors. As such, it is strongly recommended that future research continue to move beyond simple correlational analyses in determining predictors of work satisfaction and should embed predictors of interest within previously validated, multivariate models.

Second, researchers seeking to study models of work satisfaction are advised to assess self-efficacy, work conditions, and affectivity. Judge et al.'s (1998) work satisfaction model which focuses on core self evaluations (e.g., self-efficacy, locus of control, self esteem, and neuroticism) and perceptions of working characteristics accomplishes this task and has found this set of variables to account for between 30-40% of the variance in work satisfaction across a number of independent samples (Judge, Bono, & Locke, 2000; Judge et al., 2005). These findings by Judge and

colleagues, along with the findings of the current study, point to these three variables (self-efficacy, affect, work conditions) being predictive of satisfaction across multiple samples and when controlling for other predictor variables. While these findings from multiple studies do not "prove" that self-efficacy, work conditions, and positive affect always predict satisfaction, a strong case can be made that these are critical components of one's work satisfaction.

Third, researchers interested in studying teacher satisfaction in particular may be guided to some degree by the findings of the current study. In popular culture, the job of teaching is often portrayed as one that combines low pay, difficult work-related tasks, and high levels of work-related stress (Macdonald, 1999). Taken together, these would not be indicative of an appealing career. However, the sample of teachers studied here were on the whole highly satisfied with their jobs. It is likely that these high levels of satisfaction were due to how strongly teachers in this sample felt supported by their organization and how well their school fit with their needs and values. From a research standpoint, what this indicates is that teacher satisfaction may best be studied by examining general job-related variables as opposed to those that are teacher specific. Teachers, perhaps similar to those in most other professions, are satisfied when they are in healthy work environments and are confident in their job related tasks.

Practice Implications

The results of the current study may also have implications for counselors working with individuals who are dissatisfied with their jobs as well as those developing interventions to improve work satisfaction. The majority of variance in

the prediction of work satisfaction was contributed by the work conditions construct, which included perceptions of fit and perceived organizational support. At an organizational level, these findings point to the importance of administrators helping their employees feel supported and needed. It is recommended that organizations and schools attempt to create work environments that are supportive of employees from the top down. For teachers specifically, they are most often working alone with little direct, day to day contact with school administration. This potentially could cause a decrease in work satisfaction if this lack of contact leads to feelings of being unsupported.

At an individual level, these findings suggest that those viewing the work environment as a poor fit for their needs and values are unlikely to be satisfied. Theorists have suggested that one way to work with these types of clients is to encourage behaviors that may increase work-related fit (Lyons & O'Brien, 2006). This may include building undeveloped skills sets that apply to a client's job or attempting to redesign one's job whereby the activities are more in line with one's interests and values. If a client's work environment is not amenable to change, it is likely that they may be seeking new employment, especially considering the strong relation between work conditions and satisfaction. Here counselors would be encouraged to work with clients to explore their career options and, specifically, to identify job possibilities in which clients may feel confident in being successful and that are a good match for their needs and values.

To a lesser degree, the significant paths from self efficacy and positive affect to satisfaction may also have implications for practice. As self-efficacy is considered

a modifiable variable (Lent & Brown, 2006), counselors who are working with individuals dissatisfied in their jobs might consider trying to increase their self-efficacy as one possible route to increase satisfaction. Bandura (1986) has suggested that four main factors influence an individual's self-efficacy: personal performance experience, modeling, social persuasion, and affective and physiological reactions. Of these factors, Bandura (1986) notes that personal performance experience is most integral to building self efficacy. Thus, counselors may try and challenge clients' negative performance beliefs and encourage work related activities in which the client feels confident in achieving. Lent (2005) also noted a number of strategies that counselors might use to bolster a client's work-related self-efficacy, including helping clients to develop achievable work-related goals and reinforcing progress on these goals. These activities may allow clients to gain positive work experiences and receive positive social feedback. At an organizational level, it is recommended that administrators run programs to facilitate an increase in work-related confidence among their employees. These may include skill building workshops, skill retraining, or exposure to psychological techniques that have been shown to increase self-efficacy

Additionally, while changing a client' trait-like affectual state or work conditions may be a more difficult task in therapy, counselors are encouraged to hone in on these variables with clients who are dissatisfied with work. Specifically, counselors might explore the extent to which dissatisfaction has to do with the work environment, a general negative disposition, or a combination of the two. For some clients who are dissatisfied at work, it may be that they are unhappy people in general

and would not be satisfied with any job no matter how great the work environment was. Here counselors might employ affect management strategies to help clients lower their general negative mood state. These may include using cognitive behavioral techniques to work with distorted negative thought patterns, teaching coping skills to more effectively deal with distress, and working with clients to build more tolerance for negative emotions (Wolsdorf & Zlotnick, 2001). It is hoped that these general counseling techniques may help to limit the impact of a client's general negative mood on their work satisfaction.

VII: Limitations and Future Directions

Limitations

The current study contains a number of limitations which may temper the findings and limit the study's implications for researchers and practitioners. First, the current study tested a specific model of work satisfaction in a parsimonious manner, thus leaving out a number of variables which may relate to satisfaction. Examples of these might include such well studied variables as job performance and work-family conflict. Even though most of the variance in the work satisfaction of this particular sample was accounted for by the five predictor variables, there still remains variance unaccounted for. Second, this study used a specific sample of workers who were teaching within one school system, were mostly White, tended to be located near metropolitan regions, and on the whole tended to be satisfied with their jobs. Due participants scoring high on many of the variables, it was necessary to normalize these scales. This resulted is scale values which were inaccurate representations of participants' true scores. The homogeneity of the sample combined with the statistical transformation of the variables limits the degree to which these results may be applied to individuals in other jobs or teachers in other school settings.

Third, all of the instruments in the current study were self report measures, thus creating a mono-method bias. This may have resulted in participants responding similarly to all survey items or may not have fully captured the variables measured in this study. In particular, the instruments used to assess fit measured individual, subjective perceptions, rather than using objective indicators of fit. While these were chosen due to fit perceptions having stronger relations to satisfaction than objective

indicators, perceived fit and work satisfaction were found to be highly overlapping (yet still distinctive) constructs. It would have been useful to use objective indicators of fit along with the subjective indicators and also gather observational data from individuals who work with the participants in the current study. Fourth, only one instrument was used to assess the positive affect and goal progress constructs, and in each case the items from these instruments were split to form two indicator variables for each construct. This method of composing latent constructs has been discouraged (Weston & Gore, 2006).

Fifth, the considerable overlap of the work conditions and work satisfaction constructs suggests that these may be tapping the same overarching construct. Although the measurement models point to work conditions and work satisfaction being distinct constructs, the .89 correlation among the latent factors allowed for the work conditions construct to take up most of the variance in predicting satisfaction. Having the work conditions construct in the model may have diminished the contribution of the other predictor variables.

Finally, the Lent and Brown (2006) model proposes that personality/affect relates to satisfaction, though in the current study only positive affect was measured. As positive affect and negative affect are unique constructs and there are other ways to operationalize personality (e.g., extraversion, neuroticism), it would be useful to include additional aspects of trait affect or personality in future model tests. The addition of additional personality/affect measures would, however, increase model complexity. It would, therefore, be necessary to balance the aims of

comprehensiveness versus parsimony in future model tests involving personality/affect variables.

Future Directions

A number of future directions are offered based on the results of the current study. First, more research is needed to understand the overlap of work conditions and work satisfaction. Though a better model fit was attained when these variables were treated as distinct, the considerable overlap is still in need of further investigation. One possibility is that perceptions of work conditions and work satisfaction should each be treated as unique outcome variables. Setting up a study with this hypothesis would allow researchers to understand the unique predictors for satisfaction and work conditions independently, without have either of these variables take up most of the accounted variance.

Second, future researchers are encouraged to utilize the Lent and Brown (2006) model in studying the work satisfaction of those from other occupations. The results of this study are encouraging in that they demonstrate strong relations between general job related variables and work satisfaction, indicating that perhaps the Lent and Brown (2006) model could be extended to other occupations. However, without empirically testing this assumption, it is impossible to know the strength of the model fit and magnitude of explained variance with other types of workers.

Third, it may be fruitful to investigate how the variables in the current model predict other psychological outcomes, such as job performance and well-being. For example, it may be that individuals who feel confident in their work-related tasks and endorse strong work-related fit also feel their work is more meaningful, are more

satisfied with their lives in general, and perform better at work. The relations of the predictor variables to these other outcomes variables may be direct or may be mediated through work satisfaction. By expanding the potential outcome variables, this will allow for a more full understanding of how an individual's perception of work relates to their attitudes and behaviors across various life domains.

Summary

In conclusion, the present study is the first empirical test of the Lent and Brown (2006) work satisfaction model. The hypothesized Lent and Brown (2006) model provided a strong fit for the data and results indicated that the five predictor variables accounted for 91% of the variance in work satisfaction. Most of this variance was accounted for by the work conditions construct, with self-efficacy and positive affect also serving as significant predictors. For future researchers, these findings highlight the importance of testing work satisfaction models and incorporating work conditions, affect, and self-efficacy within these models. For practitioners, these findings indicate a number of routes that can be used to help increase a client's satisfaction. These may include working with clients to increase their self-efficacy and assisting clients in job redesign or skill development to increase work-related fit.

APPENDIX A

<u>Demographics</u>

Age: _____

Gender (circle one):   Male   Female

Race or ethnic group (Circle one):

Black or African American

Hispanic American

White or European American

Asian/Pacific Islander-American

Native American

Other (Please specify): _____

What level do you teach at: Elementary School   Middle School   High

School

How many years have you worked as a teacher: _____

APPENDIX B

Job Satisfaction

Please circle one answer to each of the following statements based on this scale:

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Unsure
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1.	I feel fairly well satisfied with my present job	1	2	3	4	5	6	7
2.	Most days I am enthusiastic about my work.	1	2	3	4	5	6	7
3.	Each day of work seems like it will never end (r).	1	2	3	4	5	6	7
4.	I find real enjoyment in my work	1	2	3	4	5	6	7
5.	I consider my job rather unpleasant (r).	1	2	3	4	5	6	7

Teaching Satisfaction

Please circle one answer to each of the following statements based on this scale:

1 = Strongly Disagree
2 = Disagree
3 = Unsure
4 = Agree
5 = Strongly Agree

1. In most ways, being a teacher is close to my ideal.   1 2 3 4 5
2. My conditions of being a teacher are excellent.   1 2 3 4 5
3. I am satisfied with being a teacher.   1 2 3 4 5
4. So far I have gotten the important things I want to be   1 2 3 4 5
   a teacher.
5. If I could choose my career over, I would change almost 1 2 3 4 5
   nothing.

Positive Affect

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past few weeks:

1	2	3	4	5
very slightly	a little	moderately	quite a bit	extremely

___ interested
___ alert
___ excited
___ inspired
___ strong
___ determined
___ attentive
___ enthusiastic
___ active
___ proud

Work-Related Goal Progress

For these items, please list your **most important** work goal which you have set on your own and was not assigned by the administration.

A self set work goal would be defined as something you personally aspire to achieve in your job. Examples of work goals for teachers might be, "improving my lecture skills," "managing my classroom better," "being less stressed at work", or "improving my lesson plans". Please list this goal below

_____

Please take a moment to consider your work-related goal and circle one answer to each of the following statements based on this scale:

1 = Strongly Disagree
2 = Disagree
3 = Unsure
4 = Agree
5 = Strongly Agree

1. I am making good progress on my work goal.   1 2 3 4 5
2. In the past, I have made significant progress toward my   1 2 3 4 5
   work goal.
3. My pursuit of my work goal has been productive.   1 2 3 4 5
4. I am satisfied with my efforts to reach my work goal.   1 2 3 4 5
5. In general, I have not made much progress with my work   1 2 3 4 5
   goal (R).

APPENDIX F

Work-Related Goal Self Efficacy

For these items, please respond to each statement by considering the work related goal you listed above.

Please circle one answer to each of the following statements based on this scale:

1 = not at all accurate
2 = slightly accurate
3 = quite accurate
4 = extremely accurate

1. I possess the necessary skills to attain my work goal.   1 2 3 4
2. I have what it takes to reach my work goal.   1 2 3 4
3. I have the necessary knowledge to reach my work goal.   1 2 3 4
4. I have the ability to reach my work goal.   1 2 3 4

APPENDIX G

<u>Work Goal Support</u>

For these items, please respond to each statement by considering the self set work related goal you listed above.

Please circle one answer to each of the following statements based on this scale:

1 = Completely Disagree
2 = Disagree
3 = Slightly Disagree
4 = Unsure
5 = Slightly Agree
6 = Agree
7 = Completely Agree

1. My fellow teachers reliably assist my attempts to accomplish this goal when I ask them to do so.
2. My fellow teachers behave in ways that conflict with my attempts to accomplish this goal
3. My immediate supervisor reliably assists my attempts to accomplish this goal when I ask her or him to do so
4. My immediate supervisor behaves in ways that conflict with my attempts to accomplish this goal.
5. My school administration reliably assists my attempts to accomplish this goal when I ask them to do so.
6. My school administration behaves in ways that conflict with my attempts to accomplish this goal.

APPENDIX H

<u>Teacher Self Efficacy</u>

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (5) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

1 = None at all
2 = Very Little
3 = Some Degree
4 = Quite A Bit
5 = A Great Deal

1. How much can you do to control disruptive behavior in the classroom?
2. How much can you do to motivate students who show low interest in school work?
3. How much can you do to calm a student who is disruptive or noisy?
4. How much can you do to help your students value learning?
5. To what extent can you craft good questions for your students?
6. How much can you do to get children to follow classroom rules?
7. How much can you do to get students to believe they can do well in schoolwork?
8. How well can you establish a classroom management system with each group of students?
9. To what extent can you use a variety of assessment strategies?
10. To what extent can you provide an alternative explanation or example when students are confused?
11. How much can you assist families in helping their children do well in school?
12. How well can you implement alternative teaching strategies in your classroom?

Work Task Self Efficacy

Think about your ability to do the tasks required by your job. When answering the following questions, answer in reference to your own personal work skills and ability to perform your job.

1 = Strongly Disagree
2 = Disagree
3 = Unsure
4 = Agree
5 = Strongly Agree

1. I have confidence in my ability to do my job.
2. There are some tasks required by my job that I cannot do well (R).
3. When my performance is poor, it is due to my lack of ability (R).
4. I doubt my ability to do my job (R).
5. I have all the skills needed to perform my job very well.
6. Most people in my line of work can do this job better than I can (R).
7. I am an expert at my job.
8. My future in this job is limited because of my lack of skills (R).
9. I am very proud of my job skills and abilities.
10. I feel threatened when others watch me work (R).

APPENDIX J

Perceived Fit

Please circle one answer to each of the following statements based on this scale:

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Unsure
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

Person/Organization Fit

1. The things I value in life are very similar to the things that my organization values.
2. My personal values match my organization's values and culture.
3. My organization's values and culture provide a good fit with the things that I value in life.

Needs/Supplies Fit

4. There is a good fit between what my job offers me and what I am looking for in a job
5. The attributes that I look for in a job are fulfilled very well by my present job.
6. The job that I currently hold gives me just about everything that I want from a job.

Perceived Organizational Support

Listed below are statements that represent possible opinions that YOU may have about working at your school. Please indicate the degree of your agreement or disagreement with each statement. Please choose from the following answers:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

When answering these questions, "school" refers to those in your work environment, including fellow teachers, immediate supervisors, and administration.

1. My school values my contribution to its well-being.
2. If my school could hire someone to replace me at a lower salary it would do so (R).
3. My school fails to appreciate any extra effort from me. (R)
4. My school strongly considers my goals and values.
5. My school would ignore any complaint from me. (R)
6. My school disregards my best interests when it makes decisions that affect me. (R)
7. Help is available from my school when I have a problem.
8. My school really cares about my well-being.
9. Even if I did the best job possible, my school would fail to notice. (R)
10. My school is willing to help me when I need a special favor.
11. My school cares about my general satisfaction at work.
12. If given the opportunity, my school would take advantage of me. (R)
13. My school shows very little concern for me. (R)
14. My school cares about my opinions.
15. My school takes pride in my accomplishments at work.
16. My school tries to make my job as interesting as possible.

(R) indicates the item is reverse scored.

APPENDIX L

<u>Student Behavior and School Atmosphere</u>

Please circle one answer to each of the following statements based on this scale:

1 = Not a problem
2 = Minor
3 = Moderate
4 = Serious

To what extent is each of the following matters a problem in your school:

1. Student misbehavior (e.g. noise, horseplay or fighting in the halls, cafeteria, or student lounge)
2. Student apathy
3. Student violence

APPENDIX M

<u>Teacher Autonomy</u>

Please circle one answer to each of the following statements based on this scale:

1 = Definitely false
2 = Somewhat false
3 = Somewhat true
4 = Definitely true

1. I select the teaching strategies and methods that I use with my students.
2. I am free to be creative in my teaching approach.
3. In my class I have little control over how the classroom is used (R).
4. I seldom use alternate procedures in my teaching (R).
5. I have little say of the scheduling of use of time in my classroom (R).
6. The scheduling of use of time in my classroom us under my control.
7. Standards for my classroom are set primarily by myself.
8. I follow my own dictates as to when and how topics are taught.
9. In my situation, I only have limited latitude in how major problems are resolved (R).
10. The selection of student learning activities in my class is under my control.

APPENDIX N

Dear Participant,

This is a research project being conducted by Ryan Duffy under the supervision of Dr. Robert Lent at the University of Maryland, College Park. The purpose of this research project is to examine what factors are important in the job satisfaction of teachers. The procedures involve completing an approximately 10-15 minute survey.

To protect your confidentiality, you are asked to **not include** any identifying information such as name or social security number. All information collected from the survey will be kept confidential. All data collected will be stored on a password protected computer and only be seen by the investigators. Most of the questions on this survey will relate to your job or work environment and thus these may bring up concerns you have about your career. We hope that, in the future, other people might benefit from this study through improved understanding of teacher job satisfaction.

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits for which you otherwise qualify. If you have any questions about the research study itself, please contact Ryan Duffy at: 0104 Shoemaker Hall, 301 314 7692, rduf@umd.edu or Dr. Robert Lent at: 3214 Benjamin Building, 301-405-2878, boblent@umd.edu.

If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: **Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-0678.** This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

By clicking the "agree" button below this will imply your informed consent and take you to the first page of the survey.

APPENDIX O

Hello Teachers,

My name is Ryan Duffy and I am currently working towards my Ph.D. in Counseling Psychology at The University of Maryland. For my dissertation I am researching job satisfaction among teachers. This is a topic of personal importance to me, as both my mother and sister are in the teaching profession and currently my mother (Dorothy Duffy) is a Librarian within the NCAIS. Hopefully, the results of my study can be used by counselors, administrators, and teachers themselves to help improve teachers' job satisfaction.

I would be extremely grateful if you would consider completing my online survey. The survey should take approximately 15 minutes to complete and your answers will be completely confidential. Also, if you choose to participate, you will be entered in a drawing for one of five $100 gift certificates to Amazon.com. Below this paragraph is a link which will guide you directly to the survey. Once again, I would greatly appreciate your participation. If you have any questions, please feel free to contact me at rduf@umd.edu. Thanks very much for your time.
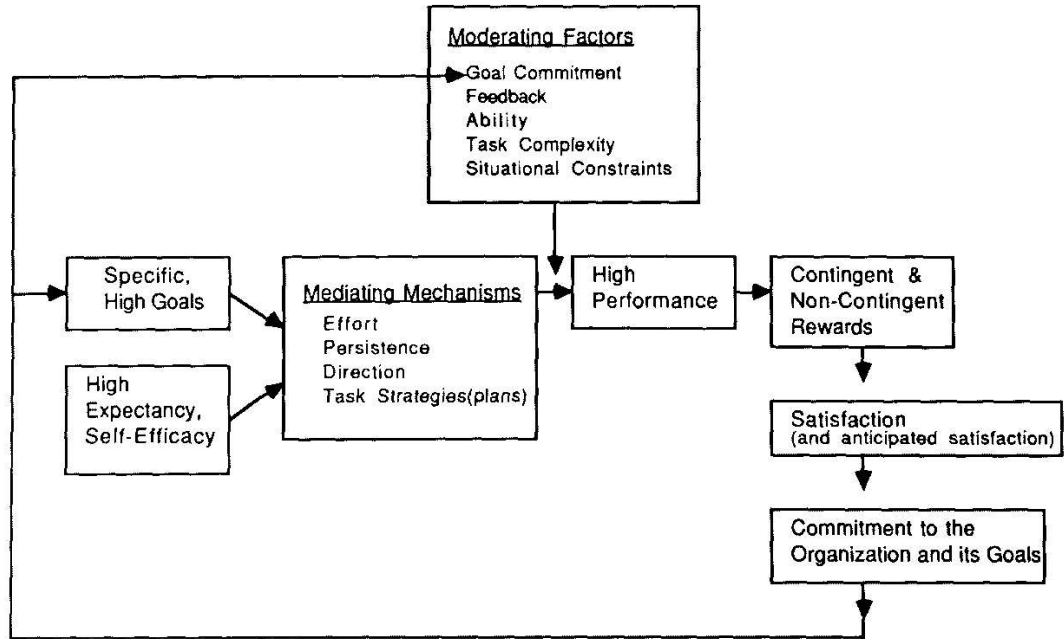
[Website address]

Sincerely,

Ryan Duffy

APPENDIX P

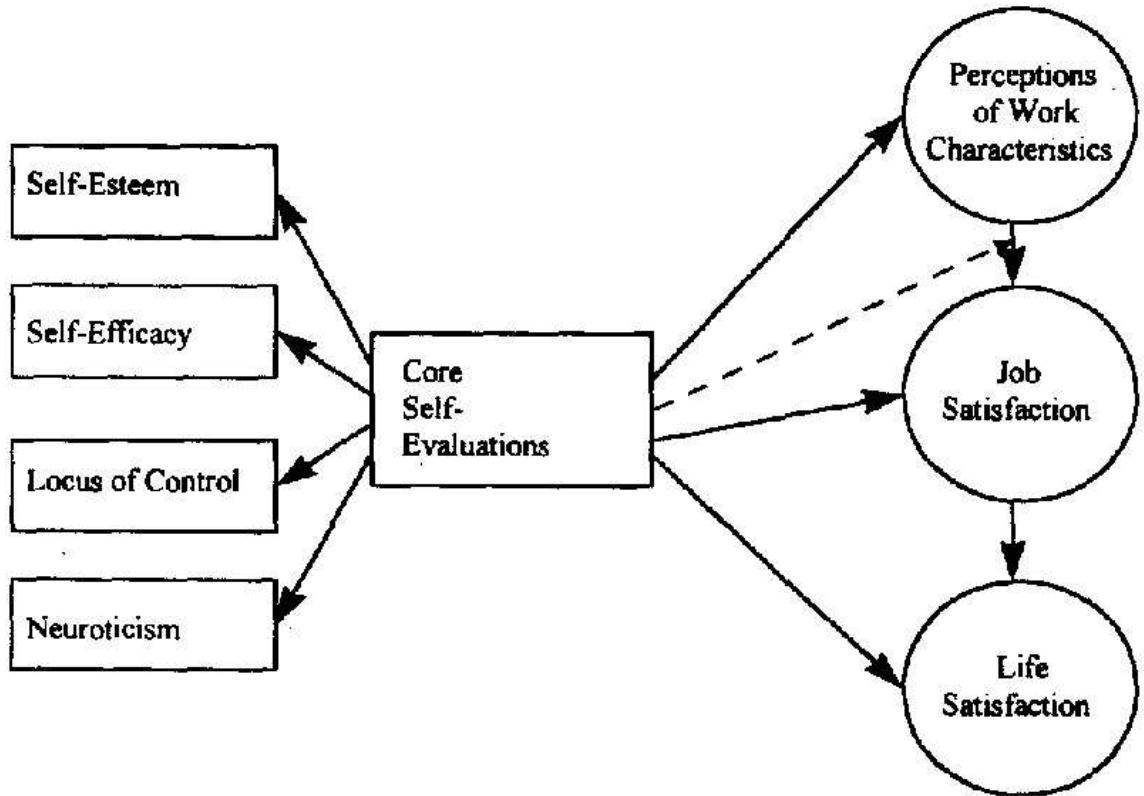## Locke and Latham's (1990) Work Satisfaction Model

Judge et al.'s Model of Core Self Evaluations (1998)

REFERENCES

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice.
A review and recommended 2-step approach. *Psychological Bulletin, 103*,
411-423.

Babin**,** B. J., & Boles**,** J. S. (1996). The effects of perceived co-worker involvement
and supervisor support on service provider role stress, performance and job
satisfaction. *Journal of Retailing, 72*, 57-75.

Baker, L.A., Cesa, I.Z., Gatz, M., & Mellins, C. (1992) Genetic and environmental
influences on positive and negative affect: Support for a two-factor theory.
Psychology and Aging, *7*, 158.

Bandura A. (1986) *Social Foundations of Thought and Action: A Social Cognitive
Theory*. Englewood Cliffs, NJ: Prentice Hall.

Baruch-Feldman, C., Brondolo, E., Ben-Dayan, D., & Schwartz, J. (2002). Sources of
social support and burnout, job satisfaction, and productivity. Journal *of
Occupational Health Psychology, 7*, 84-93.

Betz, N.E. & Hackett, G. (1981). The relationship of career-related self -efficacy
expectations to perceived career options in college men and women. *Journal
of Counseling Psychology, 28,* 399-410.

Brayfield, A.H., & Rothe, H.F. (1951). An index of job satisfaction. *Journal of
Applied Psychology, 35,* 307-311.

Brief, A. P., Burke, M. J., George, J. M., Robinson, B. S., & Webster, J. (1988).
Should negative affectivity remain an unmeasured variable in the study of job
stress? *Journal of Applied Psychology, 73*, 193-198.

Brief**,** A. P., & Weiss**,** H. M. (2002). Organizational behavior: Affect in the

workplace. *Annual Review of Psychology, 53*, 279-307.

Brown, S. D., & Lent, R. W. (1996). A social cognitive framework for career choice

counseling. *The Career Development Quarterly, 44*, 354-366.

Brunstein, J.C. (1993). Personal goals and subjective well-being: A longitudinal

study. *Journal of Personality and Social Psychology, 65,* 1061-1070.

Brunstein, J. C., Dangelmayer, G., & Schultheiss, O. C. (1996). Personal goals and

social support in close relationships: Effects on relationship mood and marital

satisfaction. *Journal of Personality and Social Psychology, 71*, 1006–1019.

Bureau of Labor Statistics. (2007). Employed person by detailed occupation and sex,

2004 national averages. Accessed at http://www.bls.gov/cps/wlf-table11-

2005.pdf, July 29, 2007.

Cable, D. M.; DeRue, D. S. (2002). The convergent and discriminant validity of

subjective fit perceptions. *Journal of Applied Psychology, 87*, 875-884.

Caprara, G. V., Barbaranelli, C., Borgogni, L., & Steca, P. (2003). Efficacy beliefs as

determinants of teachers' job satisfaction. *Journal of Educational Psychology,

95*, 821–832.

Caprara, G. V., & Steca, P. (2006). The contribution of self-regulatory efficacy

beliefs in managing affect and family relationships to positive thinking and

hedonic balance *Journal of Social & Clinical Psychology, 25*, 603-627

Chan, D.W. (2002). Stress, self-efficacy, social support, and psychological distress

among prospective Chinese teachers in Hong Kong. *Educational Psychology,

22*, 557-569.

Chen, G., Goddard, T., & Casper, W. J. (2004). Relating general and work-specific self-evaluations and work-related control beliefs to an expanded job attitudes criterion. *Applied Psychology: An International Review, 53,* 349-370.

Clark, A. E., Oswald A., & Warr, P. (1996). Is job satisfaction U-shaped in age*? Journal of Occupational and Organizational Psychology, 69*, 57-81

Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: A meta-analysis. *Personality and Individual Differences, 29*, 265–281.

Cook, C., Heath, F., &Thompson, R.L. (2000): "A meta-analysis of response rates in Web- or Internet-based surveys". *Educational and Psychological Measurement, 60*, 821-836.

Dawis, R. V. (2005). The Minnesota Theory of Work Adjustment.   In: *Career development and counseling: Putting theory and research to work*. Brown, Steven D.; Lent, Robert W.; Hoboken, NJ, US: John Wiley & Sons Inc, 2005. pp. 3-23.

Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment*. Minneapolis: University of Minnesota Press.

Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology, 47,* 1105-1117

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276–302.

Edwards, J.R., Cable, D.M., Williamson, I.O., Lambert, L.S. and Shipp, A. (2006). The phenomenology of fit: Linking the person and environment to the subjective experience of fit. *Journal of Applied Psychology, 91*, 802-827.

Eid, M., & Diener, E. (1999). Intraindividual variability in affect: Reliability, validity, and personality correlates. *Journal of Personality and Social Psychology, 76*, 662-676.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500-507.

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristic model: A review and meta-analysis. *Personnel Psychology, 40*, 287-322.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.

Harris, C., Daniels, K. & Briner, R.B. (2003). A daily diary study of goals and affective well-being at work. *Journal of Occupational and Organizational Psychology, 76*, 401–410.

Hodson, R. (1989). Gender differences in job satisfaction: Why aren't women more dissatisfied. *The Sociological Quarterly, 30*, 385-399.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Humphrey, S.E., Nahrgang, J. D., & Morgenson, F.P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*, 1332-1356.

Ilies, R., & Judge, T.A. (2003) On the heritability of job satisfaction: The mediating

role of personality. *Journal of Applied Psychology, 88*, 750-759.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*, 80–92.

Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self evaluations and job and life satisfaction: The role of self concordance and goal attainment. *Journal of Applied Psychology*, 90, 257-268.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self efficacy indicators of a common core construct? *Journal of Personality and Social Psychology, 83*, 693–710.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The Core Self-Evaluations Scale (CSES): Development of a measure. *Personnel Psychology, 56*, 303–331.

Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta analysis. *Journal of Applied Psychology, 87*, 530–541.

Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology, 89*, 661–673.

Judge, T. A., & Larsen, R. J. (2001). Dispositional source of job satisfaction: A review and theoretical extension. *Organizational Behavior and Human*

Decision Processes, 86, 67–98.

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional

effects on job and life satisfaction: The role of core self-evaluations. *Journal

of Applied Psychology, 83*, 17-34.

Kacmar, K.M., & Ferris, G. R. (1989). Theoretical and methodological considerations

in the age-job satisfaction relationship. *Journal of Applied Psychology, 74*,

201-207.

Karoly, P., & Ruehlman, L. S. (1995). Goal cognition and its clinical implications:

Development and preliminary validation of four motivational assessment

instruments. *Assessment*, 2, 113-129.

Kashdan, T.B., & Roberts, J.E. (2006). Affective outcome in superficial and intimate

interactions: Roles of social anxiety and curiosity. *Journal of Research in

Personality, 40*, 140-167.

Kittel, F. & Leyen, F. (2003). A study of work stressors and wellness/health outcomes

among Belgian school teachers. *Psychology and Health,* 18, 501-510.

Kline, R. B. (1998). *Principles and practice of structural equation modeling*. NY:

Guilford Press.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of

individuals' Wt at work: A meta-analysis of person–job, person–organization,

person–group, and person–supervisor fit. *Personnel Psychology, 58*, 281–342.

Kyriacou, C., (1987). Teacher stress and burnout: an international review.

Educational Research, 29, 146-152.

Lakey, B., & Scoboria, A. (2005). The relational contribution of trait and social

influences to the links among perceived social support, affect, and self-esteem. *Journal of Personality, 73*, 361-388.

Lam, S. S. K., Chen, X. P., & Schaubroeck, J. (2002). Participative decision making and employee performance in different cultures: The moderating effects of allocentrism/idiocentrism and efficacy. *Academy of Management Journal, 45*, 905-914.

Lent, R. W. (2008). Understanding and promoting work satisfaction. An integrative view. In S.D. Brown and R.W. Lent (Eds.), *Handbook of counseling psychology* (4th ed.). New York: Wiley.

Lent, R. W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychosocial adjustment. *Journal of Counseling Psychology, 51*, 482–509.

Lent, R. W., & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior, 69*, 236-247.

Lent, R.W., Brown, S.D., Brenner, B., Chopra, S.B., Davis, T., Talleyrand, R., & Suthakaran, V. (2001). The role of contextual supports and barriers in the choice of math/science educational options: A test of social cognitive hypotheses. *Journal of Counseling Psychology, 48,* 474-483.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122.

Lent, R.W., Brown, S.D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D.

(2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50,* 458-465.

Lent, R.W., Brown, S.D., Sheu, H., Schmidt, J., Brenner, B.R., Gloster, C.S., Wilkins, G., Schmidt, L., Lyons, H., & Treistman, D. (2005). Social cognitive predictors of academic interests and goals in engineering: Utility for women and students at historically Black universities. *Journal of Counseling Psychology,* 52, 84-92.

Lent, R. W., Singley, D., Sheu, H., Gainor, K. A., Brenner, B. R., Treistman, D., & Ades, L. (2005). Social-cognitive predictors of domain and life satisfaction: Exploring the theoretical precursors of subjective well-being. *Journal of Counseling Psychology, 52*, 429–442.

Lent, R.W., Singley, D., Sheu, H., Schmidt, J.A., & Schmidt, L.C. (2007). Relation of social-cognitive factors to academic satisfaction in engineering students. *Journal of Career Assessment, 15,* 87-97.

Lim-Ho, C. & Au, W. T. (2006). Teaching satisfaction scale: Measuring job satisfaction of teachers. *Educational and Psychological Measurement, 66,* 172-185.

Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science, 1*, 240–246.

Locke, E.A., Shaw, K.N., Saari, L.M., & Latham, G.P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin, 90*, 125-152.

Locke, E. A., Frederick, E., Lee, C., & Bobko, P. (1984) Effect of self-efficacy, goals,

and task strategies on task performance. *Journal of Applied Psychology, 69*, 241-251.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist. 57*, 701-717.

Latham, G. P., Erez, M., & Locke, E. (1988). Resolving scientific disputes by the joint design of crucial experiments by the antagonists: Application to the Erez–Latham dispute regarding participation in goal setting. *Journal of Applied Psychology, 73*, 753–772.

Lubbers, R., Loughlin, C ., & Zweig, D. (2005). Common pathways to health and performance: Job-self-efficacy and affect among young workers *Journal of Vocational Behavior, 67,* 199-214.

Lyons**,** H. Z., & O'Brien**,** K. M. (2006). The role of person-environment fit in the job satisfaction and tenure intentions of African American employees. *Journal of Counseling Psychology, 53*, 387-396.

Ma, X., & Macmillan, R. B. (1999). Influences of workplace conditions on teachers' job satisfaction. *Journal of Education, 93*, 39-47

MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of psychology, 51*, 201-226.

Macdonald, D. (1999). Teacher attrition: A review of the literature. *Teaching and Teacher Education,* 15**,** 839–848.

Machin, M. A., & Creed, P. A. (2003). Understanding the differential benefits of

training for the unemployed. *Australian Journal of Psychology, 55*, 104-113.

Maier, G. W., & Brunstein, J. C. (2001). The role of personal work goals in newcomers' job satisfaction and organizational commitment: A longitudinal analysis. *Journal of Applied Psychology, 86*, 1034–1042.

Mason, E.S. (1995). Gender differences in job satisfaction. *The Journal of Social Psychology, 135,* 143-51.

Niklas, C. & Dormann, C. (2005). The impact of state affect on job satisfaction. *European Journal of Work and Organizational Psychology, 14,* 367-388.

Pearson, L., & Hall, B. (1993). Initial construct validation of the teaching autonomy scale. *Journal of Educational Research, 86*, 172-177.

Perie, M. & Baker, D.P. (1997*). Job satisfaction among America's teachers: Effects of workplace conditions, background characteristics, and teacher compensation.* Washington, D.C.: National Center for Education Statistics

Porter, L.W. & Lawler, E.E. (1968). *Managerial attitudes and performance.* Homewood, IL: Dorsey Press.

Rasku, A., Kinnunen, U. (2003). Job conditions and wellness among Finnish upper secondary school teachers. *Psychology and Health, 18*, 441-56.

Ravlin**,** E. C., & Ritchie**,** C. M. (2006). Perceived and actual organizational fit: Multiple influences on attitudes. *Journal of Managerial Issues, 18*, 175-192.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*, 698-714.

Richardson, P. W., & Watt, Helen M. G. (2005). I've decided to become a teacher': Influences on career change. *Teaching and Teacher Education, 21*, 475-489.

Riggs, M. L., Warka, J., Babasa, B., Betancourt, R., & Hooker, S. (1994). Self-efficacy and outcome expectancy scales for job-related applications. *Educational and Psychological Measurement, 54*, 793- 802.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141–166.

Schaubroeck, J., Lam, S. S. K., & Xie, J. L. (2000). Collective efficacy versus self-efficacy in coping responses to stressors and control: A cross-cultural study. *Journal of Applied Psychology, 85*, 512-525.

Scheier, M. F, & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of outcome expectancies. *Health Psychology, 4*, 219-247.

Serow, R. C. (1993). Why teach? Altruism and career choice among nontraditional recruits to teaching. *Journal of Research & Development in Education, 26*, 197-204.

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need-satisfaction, and longitudinal well-being: The Self-Concordance Model. *Journal of Personality and Social Psychology, 76*, 482-497.

Singley, D.B., Sheu, H.B., & Liang, C.T.H. (2004) *Three week test-retest reliability of goal oriented domain-specific self-report instruments.* Unpublished manuscript.

Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*, 611-625.

Smith, T.W. (2007). *Job satisfaction in the United States*. Chicago, IL: NORC.

Smith, P. C., Kendall, L., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement*. Chicago: Rand McNally.

Smith, M. & Bourke, S. (1992). Teacher Stress: Examining a model based on context, workload and satisfaction. *Teaching and Teacher Education, 8*, 31-46.

Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage.

Swanson, V., & *Power*, K. (2001). Employees' perceptions of organizational restructuring: The role of social support. *Work & Stress, 15*, 161-178

Tellegen, A. (1982). Brief manual for the differential personality questionnaire. Unpublished manuscript, University of Minnesota, Minneapolis.

Ter Doest, L., Maes, S., Gebhardt, W.A., & Koelewijn, H. (2006). Personal goal facilitation through work: Relationships with employee satisfaction and well-being. *Applied Psychology: An International Review, 55*, 192-219.

Thompson, D.P., McNamara, J.F., & Hoyle, J.R. (1997). Job satisfaction in educational organizations: a synthesis of research findings. *Educational Administration Quarterly, 33,* 7-37.

Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin, 129*, 914–945.

Travers, C.J., & Cooper, C.L. (1993). Mental health, job satisfaction and occupational stress among UK teachers. *Work and Stress, 7*, 203-219.

Tschannen-Moran, M & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an

elusive construct. *Teaching and Teacher Education, 17*, 783-805

Van Eerde, W. & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology, 81*, 575-586.

Van Houtte, M. (2006). Tracking and teacher satisfaction: Role of study culture and trust. *Journal of Educational Research, 99*, 247-254

Vroom V H. (1964). *Work and motivation.* New York: Wiley

Watson, D., Clark, L. A., & Carey, G. (1988). Positive and negative affect and their relation to anxiety and depressive disorders. *Journal of Abnormal Psychology, 97,* 346-353.

Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.

Weston, R. & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, *34,* 719 – 751.

Wiese, B. S., Freund, A. M. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational and Organizational Psychology, 78*, 287-304.

Wong**,** K. S., Cheuk, W. H., Rosen**,** S. (2000). The influences of job stress and supervisor support on negative affects and job satisfaction in kindergarten principals. *Journal of Social Behavior & Personality, 15*, 85-98.