

ABSTRACT

HESS, CLARA EILEEN. The Moderating Effects of Teacher Self-Efficacy on the Relationship Between Job Satisfaction and Intent to Turnover. (Under the direction of Samuel B. Pond.)

Teachers quit their jobs at twice the rate of other professions. Annually, 8% of teachers quit teaching and another 8% transfer to another school. This study investigates why some dissatisfied teachers quit teaching altogether while others leave their job at one school for a teaching job at another school. This study attempts to ascertain how teaching self-efficacy moderated the relationship between job satisfaction withdrawal intentions; both turnover and transfer intentions.

A sample of 150 teachers filled out self-report questionnaires regarding their job satisfaction, teaching self-efficacy, and their withdrawal intentions. Hierarchical moderated multiple regression analyses revealed that self-efficacy did not moderate the relationship between job satisfaction and turnover intentions, but did significantly moderate the relationship between job satisfaction and transfer intentions. However this relationship was found in the opposite direction as originally proposed. Explanations of this unexpected finding as well as the implications of these results and directions for future research are discussed.

The Moderating Effects of Teacher Self-Efficacy
on the Relationship Between Job Satisfaction and Intent to Turnover

by

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BIOGRAPHY

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Section1: Literature Review

While the importance and impact of teachers on the lives and futures of their students is widely acknowledged by the public and often mentioned by politicians in speeches, high rates of teacher turnover continue to be a problem in our country. Up to 25% of new teachers do not return for their third year of teaching, and almost 40% leave the profession within their first five years (Gold, 1996). Nationally, approximately 8 % (National Center for Educational Statistics [NCES], 2005) of teachers leave the profession each year, a rate significantly higher than the average for all professions, which is under 4% (Job Openings and Labor Turnover Survey [JOLTS], 2006). In addition, another 8% transfer from one school to teach at a different school (JOLTS, 2006).

With the present research, I hope to establish a link between teacher job satisfaction and self-efficacy that could increase the quality of education by decreasing the rate of teacher turnover or transfer. It is my hypothesis that self-efficacy (an individual's beliefs about his or her ability to perform a task or bring about specific outcomes) serves as a moderator of the relationship between job dissatisfaction and turnover and transfer. If this hypothesis is supported, then improving self-efficacy through teacher education programs, both before service and during service through professional development, could help keep more desperately needed teachers from leaving the profession or could help principals keep teachers from leaving their school for another.

In order to complete the objectives of this study, I will first review turnover models, define turnover intentions, and identify the relationship between satisfaction and turnover. This will allow me to explain what developments have been made regarding turnover and turnover intentions and identify areas where more research would be useful. Furthermore,

this review will allow me to identify where the literature on turnover and satisfaction coincides with the literature on teacher turnover and where more integration would be beneficial. Following the review of turnover models, I will discuss the role of self-efficacy on turnover, an area in which there is a dearth of research. I will explain how self-efficacy can be used to increase our understanding of the relationship between job satisfaction and turnover intentions. After reviewing the literature and building a case for my hypothesis, I will present the methodology I propose to use to examine teacher self-efficacy as a moderator between job satisfaction and teacher turnover and as a moderator between job satisfaction and teacher transfer.

A Review of Turnover Literature

For nearly half a century researchers have investigated the causes of employee turnover. Much of the research has been focused on investigating individuals' decisions to leave their job. Over time, the models have developed to include more individual and organizational predictors, more causal linkages, and the addition of withdrawal cognitions (searching for a new job, thinking about quitting, etc.). By reviewing prior research on turnover I will be able to focus on predictors most highly correlated to turnover and those predictors that are more easily altered by the organization in order to decrease turnover. I will begin by reviewing some of these models, followed by an appraisal of where these models coincide with research in the education literature on teacher turnover.

March and Simon (1958) began the investigation of turnover with a theory on the ease of movement, how easy it would be for the employee to find another job, and the desirability of movement, or how much jobholders want to leave their job. The major factor affecting perceived ease of movement is the number of available opportunities perceived

external to the organization, including the level of business activity and the number of similar visible organizations. The lack of perceived possibility of intra-organizational transfer and low job satisfaction are the two factors that contribute to desirability of movement in their model.

Alternative job opportunity and job satisfaction remained in Price's model of turnover (1977). The Price model specified that pay, social integration, instrumental communication formal communication, and centralization of power determined turnover. In this model, for pay or monetary compensation to be a significant determinant, pay must be important to the individual. Social integration is the extent to which the individual feels that they are an integral part of a group within the organization. Instrumental integration is the degree to which information about the employee is transmitted to the employee by the organization while formal communication is how information is disseminated from upper level management and supervisors and is related to the centralization of power within the organization. In this model, high centralization is thought to increase turnover. Opportunities and job satisfaction are pinpointed as intervening variables between the determinants and turnover. An essential hypothesis of the Price model is that dissatisfaction results in turnover only when there is an interaction between satisfaction and opportunity and when opportunity is high.

Mobley (1977) also contended that job dissatisfaction leads to quitting when an employee has expectations that a more satisfying job exists. However, Mobley went further and added that job dissatisfaction can lead to thoughts of quitting (intentions to leave) which can lead to turnover. This led to Mobley, Horner, and Hollingsworth's (1978) model, in which dissatisfaction generates a sequence of withdrawal cognitions that employees use to

examine the costs and benefits of leaving their jobs. Mobley, Griffeth, Hand, and Meglino (1979) expanded this model by incorporating withdrawal cognitions (namely, intentions to quit). They suggested that there are four primary antecedents of intentions to quit and consequent turnover: job dissatisfaction, perceived alternatives within the organization, perceived alternatives outside of the organization, and non-work values held by the employee. Mobley et al.'s model is more comprehensive in that it includes individual, organizational, and environmental variables. Mobley et al. indicated that overall job satisfaction consistently is negatively correlated with turnover but explains only a small amount of variance.

A more recent prevailing theory of turnover focuses on quitting induced by low levels of satisfaction and low commitment to the organization (Mueller and Price, 1990). As these proposed antecedents have stayed relatively stable, future changes in turnover models usually took the form of additional demographic predictors, work related predictors, and the impact of external market forces. The model on which most research in the 1990's was based was Hom and Griffeth's (1991) model. In this model job dissatisfaction leads to withdrawal cognitions, which then either may lead to an analysis of the expected utility of withdrawal (job search, compare alternative) or directly to turnover. Low organizational commitment is also specified as a predictor of turnover.

Studies of the variables that predict employee turnover have been summarized in three meta-analyses (Cotton & Tuttle, 1986; Griffeth, Hom, & Gaertner, 2000; & Tett & Meyer, 1993). The most recent of these meta-analyses has shown that turnover models can include many different types of predictor variables, including demographic predictors (age, gender, education, marital status, etc.) job satisfaction predictors, compensation, leadership,

co-worker relationships, stress, job content, external factors such as alternative opportunities, behaviors such as job search, and withdrawal cognitions (Griffeth et al., 2000). Fields, Dingman, Roman, and Blum (2005) separate these many variables into the following four categories: employee characteristics, nature of the current job, nature of the current organization, and external conditions. To my knowledge, none of the meta-analyses include studies that considered self-efficacy as a predictor or moderator, nor did they include studies with samples consisting of teachers.

While numerous variables have been studied, Griffeth, Hom, and Gaertner (2000) found that the best predictors of turnover include job satisfaction, organizational commitment, job search behaviors, comparison of alternatives, withdrawal cognitions, and intentions to quit. They found that overall job satisfaction is the best attitudinal predictor ($p_1 = -.19$). Job satisfaction scores used to predict quitting in the future were also shown to be successful by Stedham and Mitchell (1996), Crampton and Wagner (1994), Hellman (1997) and, Krausz, Koslowsky and Eiser (1998).

Moreover, Griffeth, Hom, and Gaertner (2000) found that intention to quit is the best predictor of actual quitting behavior ($p_1 = -.38$). Consistently, Tett and Meyer (1993) found that turnover intentions mediated the relationship between affective variables such as satisfaction and commitment and actual turnover and is a stronger predictor of job turnover than other variables. This is consistent with Ajzen and Fishbein's argument that behavioral intention is the primary antecedent to actual behavior (1977). This brief overview of turnover models makes up much of the theoretical base that I initially drew from to create my hypothesis, before narrowing the subject area to the field of education.

Turnover in Education Literature

In recent years there have been alarming reports regarding severe teacher shortages. Many researchers and laypeople posit that the shortage of teachers is due to both increasing student enrollments and an increasing number of teachers reaching retirement (Ingersoll & Smith, 2003). However Ingersoll and Smith (2003) found that these two occurrences are not the primary cause of staffing difficulties and teacher shortages but that voluntary teacher turnover is the larger problem. Turnover rates in education take place at an elevated rate, with approximately 8% of teachers leaving the profession annually (NCES, 2005) compared with general workforce turnover rates under 4% (JOLTS, 2006). This necessitates a specific analysis to isolate possible reasons for and solutions to this problem. Moreover, an additional 8% of teachers leave their current school for teaching position at another school. Examining why teachers chose to transfer rather than leave the teaching profession is an important research topic (Rivkin, Hanushek, & Kain, 2005; Theobald, 1990; Mont & Rees, 1996).

High turnover merits study as it can cause performance problems in an organization (Price, 1989). In an organization like a school that has extensive interactions among administration, faculty, staff, and students, turnover can disrupt school cohesion, culture and morale. Annually recruiting and replacing teachers is both time consuming and costly for school administrators (Boe et al., 1997). The cost of replacing all public school teachers who have left the profession is estimated to be around \$2.2 billion each year (Alliance for Education, 2005).

Because of the costs and detriment teacher turnover can cause in school, it comes as no surprise that research on turnover in education has been abundant. Research on teacher

turnover over the past two decades has focused both on determining which kinds of teachers are more likely to leave teaching and which types of schools are more prone to having teachers leave. While there has been a wealth of research on turnover, little of it has been informed by theories or models of turnover. Typically, special education, mathematics, and science teachers were found to have the highest turnover (Billingsley, 1993; Billingsley 2004; Grissmer & Kirby, 1992; Ingersoll, 2001). Age also plays a large role in turnover, displaying a curvilinear relationship with the youngest and oldest teacher choosing to leave the profession, although for different reasons. Younger teachers tend to leave during the beginning of their careers and older workers leave as they retire. (Lachman & Diamant, 1987). Men leave the teaching profession more often than women (Billingsley, 2004; Coladarci, 1992). Forty-five percent of teachers who leave do so for personal reasons that include departures for pregnancy, child-rearing, health problems, and family relocations (Ingersoll, 2001).

Teacher-Specific Turnover Models

The models of turnover by Price (1977), Mobley, Horner, and Hollingsworth (1978), Mobley, Griffeth, Hand, and Meglino (1979) and Hom and Griffith (1991) encompass the same types of individual and organizational variables that models of teacher turnover do. Such variables include satisfaction, commitment, labor market conditions, compensation, commitment, and demographic data. There has not, however, been much similitude between the structure of the previous models and the following teacher-specific models. Models specific to teacher turnover propose that personal characteristics, learning experiences (defined as quality of first employment experience, educational experiences, and initial commitment to teaching), environmental conditions (employment climate and alternative

opportunities), and performance skills (social integration, skills and abilities, accomplishments, and values) lead to career satisfaction which leads to career decisions (choosing to remain in or leave teaching). Perhaps the most significant difference between the general and teacher-specific turnover literatures is the lack of the use of models in the teacher-specific turnover literature. Even though the teacher-specific turnover is sizeable, few of the studies refer to established models either in the education literature or the general turnover literature. A review of these models may clarify where the two fields diverge and how they can best be integrated to explain the relationship between job satisfaction and turnover and how self-efficacy may moderate that relationship.

Chapman (1983) proposes a turnover model specific to teachers. This model has six determinants; teachers' personal characteristics, educational preparation, initial commitment to teaching, quality of first teaching experience, professional and social integration into teaching, and external influences such as alternative employment opportunities. This model is similar to the general models discussed earlier. It includes variables pertaining to commitment, demographics, and perceived external opportunity. Interestingly, Chapman's (1983) and Price's (1977) models are similar in their insertion of social integration; however, Chapman does not explicitly reference any of the models of general turnover. Perhaps this is because more focus is placed on career preparation and the quality of the first employment experience. The addition of previous experience may be a useful addition to the general turnover models, while the teacher-specific models may want to consider continued or current commitment in addition to only initial commitment. Chapman's model also excludes the role of leadership, compensation, stress, and withdrawal intentions which Mobley, Griffeth, Hand, and Meglino (1979) and Hom and Griffeth (1991) models include. While the

inclusion of a skills and abilities assessment hints toward efficacy, neither Chapman's model, nor the other models reviewed, explicitly consider self-efficacy. The following model also fails to consider self-efficacy explicitly as a contributor to turnover.

Billingsley's (1993) schematic model includes three broad categories; external factors, employment factors, and personal factors, which are categories similar to the Price (1977) model. Personal factors refer to internal factors such as age, gender, race, years of experience, teacher qualifications, degrees earned, teacher preparation, and academic ability of the individual. External factors include factors such as economic, societal, and institutional factors. Finally, salary, school climate, administrative support, colleague support, job satisfaction, and commitment are classified as employment factors. While these categories contain variables similar to the variables in the general turnover models, Billingsley neither proposes a causal model, nor expands upon previous teacher-specific models or general models. A literature review of ninety-six studies on teacher turnover from 1980 through 2003 noted the need for the development of multivariate behavioral models capable of explaining all the relevant trends in teacher-specific turnover literature (Guarino, Santibanez, Daley, & Brewer, 2004).

Notwithstanding the weaknesses in the teacher-specific models, the research on teacher turnover is ample. A number of factors have been established as contributing to teacher attrition (MacDonald, 1999). The factors that create the most prominent sources of voluntary turnover are job dissatisfaction and the desire to pursue a better job. Dissatisfaction accounts for 42% of all teacher departures (Ingersoll, 2001). The most cited causes of dissatisfaction leading teachers to leave the field include low salaries, inadequate support from school administration, lack of student motivation, and student discipline

problems (Ingersoll, 2001). Job dissatisfaction also stems from problems such as desire to pursue a better job, another career, or to improve career opportunities (Ingersoll, 2002). Frequently, teachers cite excessive non-teaching responsibilities, lack of autonomy, sense of isolation, lack of administrative support, and lack of teacher influence in decision making as reasons for their departure (Coladarci, 1992). Of beginning teachers in their first few years of teaching who leave the field, 29% cite dissatisfaction with either their job or the career of teaching as the reason (Ingersoll & Smith, 2003). In a follow up survey, beginning teachers who left the profession were asked to identify the top three reasons for their departure. The primary cause of their dissatisfaction was attributed to low salaries, with 78.5 % respondents choosing this as one of the three reasons they left. Thirty-five percent of respondents choose student discipline problems, poor administrative support was chosen by 26.1%, and 17% of respondent chose poor student motivation (2003).

It is an interesting phenomenon that while half of departing teachers leave the profession, the remaining half chooses to transfer to different schools (NCES, 2005). Examining why teachers chose to transfer rather than leave the teaching profession is an important research topic (Rivkin, Hanushek, & Kain, 2005; Theobald, 1990; and Mont & Rees, 1996). Among the reasons that public school teachers gave in 2000–2001 for moving to a new school were an opportunity for a better teaching assignment (40 %), dissatisfaction with support from administrators (38 %), and dissatisfaction with workplace conditions (32 %) (NCES, 2004).

If school administrators better understood why some teachers leave one school for another, perhaps this would help them develop strategies for maintaining staffing continuity and stability. This is important because in an organization like a school that has extensive

interactions among administration, faculty, staff, and students, yearly shifts in personnel can disrupt school cohesion, culture and morale and the educational process. Furthermore, the annual recruitment and replacement of entering teachers is both time consuming and costly for school administrators (Boe et al., 1997).

To improve the stability of schools and increase quality education solutions for teacher turnover and teacher transfer must be found or created. While an increase in salary may help retain teachers, most public school principals cannot do this without lengthy legislation and district support. Practical research focuses on variables that can be controlled. Administrative support can be improved, and a supportive administration can alleviate student discipline problems. If self-efficacy (a person's belief in his or her ability to produce desired outcomes or successfully complete a task) affects the relationship between job satisfaction and turnover, perhaps administrators can work to bolster teacher self-efficacy and thus decrease turnover. A substantial amount of research has been done on the personal characteristics of teachers who leave and the reasons why they leave. This research indicates a strong relationship between job satisfaction and turnover. Little research has focused on self-efficacy as a moderator between job satisfaction and turnover, which is addressed in the following section.

Moderators of Turnover

As many studies measure turnover intention or withdrawal cognitions, a significant question in the turnover literature is what moderates the relationship between antecedents to turnover, such as satisfaction, and turnover intentions and behavior. Explored moderators have been as varied as self-esteem (Abraham, 1999), attitude toward money (Li-Ping Tang,

Kim, & Shin-Hsiung Tang, 2000), performance (Lance, 1988), and locus of control (Blau, 1987).

Brief and Aldag (1981) suggested studying individuals' beliefs and expectations when investigating organizational behavior. Their model describes the importance of observing interactions between organizational conditions and individuals' self-beliefs to understand organizational behavior. One important type of individual belief would include self-efficacy. Allen, Weeks, and Moffitt (2005) explored variables moderating the relationship between turnover intention and turnover. They examined self-beliefs such as self-monitoring, locus of control, and proactive personality. Their results indicated that turnover intentions led to actual turnover more often for people who were low in self-monitoring and who had low risk aversion and for employees with an internal locus of control. Proactive personality did not moderate the turnover intentions to turnover behavior relationship. However, in *post hoc* analyses they found that proactive personality displays a curvilinear relationship and increases the propensity that turnover intentions lead to turnover behavior. Allen et al. concluded that these traits are important in understanding why some employees who intend to quit actually do while others stay with the organization. Research on teacher self-efficacy also indicates that it would be an appropriate variable to consider to further our understanding of teacher turnover.

Teacher Self-Efficacy

Certain areas that teachers identify as sources of dissatisfaction are outside of their realm of direct control, such as salary and administrative support. Other areas in which teachers can perhaps exert some amount of influence might include student motivation and discipline in the classroom. If it is found that teacher self-efficacy affects the relationship

between job satisfaction and turnover then this is one area where administrators might be able to have an affect on teacher turnover. They may well be able to support efforts to improve working conditions that can in turn bolster teacher self-efficacy and thus decrease the effects of dissatisfaction on turnover. In effect, a higher sense of self-efficacy may allow a teacher to be more resilient in poor work conditions that typically lead to turnover.

Bandura (1977) identified self-efficacy as a process in which people cognitively construct beliefs about their ability to perform behaviors that will lead to a desired result or level of achievement. Bandura's theory of self-efficacy states that human behavior is influenced by beliefs about outcome expectations and efficacy expectations. Outcome expectations are beliefs that certain behaviors will lead to certain outcomes, while efficacy outcomes are beliefs that one can perform the behaviors necessary for generating the outcome (Bandura, 1977). Self-efficacy is a situation-dependent variable. It evolves with continued experience in the situation, and is thereby changeable over time (Bandura, 1982).

Since self-efficacy refers to an individual's belief that they possess the skills, knowledge and resources needed to succeed at a specific task, teacher self-efficacy should focus on the tasks that are required of teachers. In the context of teaching, efficacy has been defined as "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p.4).

For more than 20 years researchers have found that, teachers' sense of efficacy has been related to student outcomes such as achievement (Ashton & Webb, 1986; Ross, 1992) and motivation (Midgley, Feldlaufer, & Eccles, 1989). Teachers with high self-efficacy are more enthusiastic about teaching (Guskey, 1984). Those with high self-efficacy are persistent and hardworking because they believe in both themselves and their students (Woolfolk,

2001). Teachers with a higher sense of self-efficacy exhibit greater enthusiasm for teaching and exhibit greater levels of planning and organization (Allinder, 1994). They also are more willing to experiment with new methods to better meet the needs of their students (Guskey, 1984; Stein & Wang, 1988). Ashton and Webb (1986) also found that teachers with higher levels of self-efficacy are less critical of errors and mistakes made by students. Teaching self-efficacy influences the amount of effort a teacher puts into teaching as well as their degree of persistence when faced with challenges (Ross, Cousins, and Gadalla, 1996).

Teachers who leave teaching have lower teacher efficacy than teachers in either their first or fifth year of teaching (Glickman and Tamashiro, 1982). Bogler and Somech (2004) found that self-efficacy along with professional growth opportunities and status within a school are significant predictors of both organizational commitment and professional commitment. In addition, they found that teachers with high self-efficacy felt more committed to both their school and the profession of teaching and are less likely to leave teaching (Coladarci, 1992; Ebmeier, 2003; Evans & Tribble, 1986). Taking the foregoing into account, this paper will examine teacher self-efficacy as a moderator of job satisfaction and turnover intentions. To my knowledge, this proposition has not yet been addressed in either the general turnover literature or the teacher-specific literature. Specifically, I hypothesize the following:

Hypothesis 1: Teacher self-efficacy will moderate the negative relationship between job satisfaction and intentions to leave the teaching profession in such a way that the relation becomes more strongly negative for teachers with low teaching self-efficacy than for those with high teaching self-efficacy.

What is implied in this hypothesis is that teachers with high teaching self-efficacy are likely to be more resilient in the face of otherwise dissatisfying work conditions than their colleagues with low teaching self-efficacy.

Hypothesis 2: Teacher self-efficacy will moderate the negative relationship between job satisfaction and intentions to leave one's current school in such a way that the relation becomes more strongly negative for teachers with high teaching self-efficacy than for those with low teaching self-efficacy.

What is implied here is that teachers with high teaching self-efficacy are less likely to leave the teaching profession altogether and that they are more likely to try to transfer to a teaching job that better supports their commitment to the teaching profession and allows them to use their teaching skills.

Section II: Method

Pilot Test

The survey and procedures were pilot-tested with a focus group of seven current or former teachers. They were asked to complete the online survey while paying attention to the clarity of directions, the ease of website maneuverability, and the lucidity of the items. Their feedback was solicited in a short email questionnaire from the researcher and minor changes in formatting were made.

Participants

Participants were drawn from a pool of 370 teachers employed by a rural public school district. One hundred and fifty elementary, middle, and high school public school teachers responded, resulting in a 40% response rate. Participants taught all content areas and at all academic levels, including special and vocational education. Of this sample, 83.3% were female and 16.7% were male. Thirty-one percent of the participants were between the ages of 20 and 30 years old, 23 % were between the ages of 31 and 40 years old, 23 % were between the ages of 41 and 50 years old, 19 % were between the ages of 51 and 60 years old, and 3 % were older than 60. Eighty percent of participants identified as White, 15 % identified as Black, .7% identified as Asian, and 3.3% identified as other. Descriptive statistics for the demographic information can be found in Table 1 and frequency statistics can be found in Table 2.

Procedures

Data was collected in May 2006 via an online survey. Teachers were contacted multiple times during data collection by letters delivered to their school mailbox. The first of the letters explained the project, its benefits and risks, and introduced the researcher. A

random drawing held at the end of data collection to promote a higher response rate was introduced to the teachers as an incentive. This letter was delivered one week before data collection and is presented in Appendix A. The second letter (see Appendix B) contained the web address of the survey, provided instructions for completing the survey, and suggested that the participants take the survey that day. This letter contained a pencil as a thank you gift to increase the response rate (Dillman, 2000). Three weeks after the second letter was delivered and one week before the deadline for completing the survey, a third letter was delivered to the mailboxes of the teachers who had not yet completed the survey. This letter was a reminder letter for those teachers who had not yet completed the survey (see Appendix C). The multiple contacts and the token gift were used in an effort to maximize response rate (Dillman, 2000).

Measures

The online survey was comprised of several measures. Participants were asked to provide their responses to items on a job satisfaction questionnaire, a teacher self-efficacy measure, items regarding their intentions to leave the profession and to leave their current school, and demographic items. The survey in its entirety can be found in Appendix D and the letter of informed consent can be found in Appendix E.

Job satisfaction. Job satisfaction was assessed using the 20-item version of the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Davis, England & Lofquist, 1967). The MSQ is one of the instruments most frequently used to measure job satisfaction. Each item represents one of the 20 facets measured by the 100-item long form. It contains Intrinsic and Extrinsic subscales, summed to a General Satisfaction score (Bizot & Goldman, 1993; Lyons & O'Brien, 2006). Each item is measured on a 5-point scale anchored (“very

dissatisfied, dissatisfied, neither satisfied or dissatisfied, satisfied, very satisfied”). The wording in two items was changed to be better suited for a school setting. In one item the word “boss” was changed to “principal” and the word “his/her workers” was changed to “the faculty and staff”. In another item the words “company policies” were changed to “school policies.” For a group of 191 teachers alpha reliability coefficients range from 0.92 for the advancement scale to 0.74 for the security scale (Lester & Bishop, 2000).

Self-efficacy. Teacher self-efficacy was measured using the Teachers’ Sense of Efficacy scale (Tschannen-Moran & Woolfolk Hoy, 2001). This scale is based on a similar scale developed by Bandura (1997), but has been expanded and has more validation information available. Furthermore, the items on this scale align more with the types of tasks that typically comprise the work that teachers do (Tschannen-Moran & Woolfolk Hoy, 2001). This 24-item instrument has three subscales measured on a 5-point scale anchored by “nothing, very little, some influence, quite a bit, a great deal.” The three subscales include; efficacy in instructional practices, efficacy in student engagement, and efficacy in classroom management. Items from these subscales include: “How much can you gauge student comprehension of what you have taught?”, “How much can you do to foster student creativity?” and “How well can you keep a few problem students from ruining an entire lesson?” A sample of 410 teachers including 103 pre-service teachers, 255 in-service teachers and 38 who failed to indicate their teaching experience, yielded a coefficient alpha reliability of .94 for the entire scale. Coefficient alpha reliabilities for the subscales were 0.91 for instruction, 0.87 for engagement, and 0.90 for management (Tschannen-Moran & Woolfolk Hoy, 2001).

Turnover Intent. Participants' intent to turnover was measured by two items from Hom and Griffeth's scale (1991, $\alpha = .89$) and one item from Hom, Griffeth, and Sellaro (1984). These items are, "I intend to leave this school [organization] within a year.", "I intend to find a new job.", and "I often think about quitting my job." These items are commonly used in turnover intention research. These items were measured on a 5-point agreement scale anchored by "Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree."

Transfer Intent. I constructed and included three additional questions to measure the teachers' intent to leave for another school. These items include; "I will likely teach at another school next year.", "I will likely teach school in another state next year.", and "I will likely teach in a private school next year." These items were measured on a 5-point agreement scale anchored by "Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree."

Demographic items. Participants were asked to complete demographic data including age, gender, race, marital status, educational level, route of teacher preparation (i.e., traditional four-year degree program, lateral entry, alternative licensure, etc.), tenure at school, total teaching tenure, and courses they currently teach. This information is commonly requested on surveys investigating teacher satisfaction and turnover. Along these lines, I also requested that each participant provide work information regarding his or her participation in after school activities, service on school committees, arrival time to campus, departure time from campus, and whether or not the participant was teaching in his or her area of certification.

Section III: Results

The means, standard deviations, coefficient alpha reliability coefficients, and a correlation matrix of the measures used to test the hypotheses of this study are presented in Table 3. All of the coefficient alpha reliability values are above the acceptable level of 0.70 recommended by Nunnally (1978). All significant correlations are in the expected direction. Notably, teacher self-efficacy is positively correlated with job satisfaction ($r = .36, p < .01$) and job satisfaction is negatively correlated with turnover intentions ($r = -.56, p < .01$) and with transfer intentions ($r = -.40, p < .01$). Interestingly, teacher self-efficacy is not significantly correlated with turnover intentions ($r = -.14$) or with transfer intentions ($r = -.13$).

Factor Analyses

The intention, job satisfaction, and teacher self-efficacy scales were factor analyzed using maximum likelihood extraction and promax oblique rotation. Factor analysis output can be found in Appendix F. The scree plots and eigenvalues were considered when determining how many factors each scale contained. Support was found for two types of intentions (turnover intentions and transfer intentions), as initially proposed (see Table 4). The factor analyses for the job satisfaction scale indicated that there was one factor (see Table 5). This general job satisfaction factor was used in all regression analyses. The three self-efficacy subscales proposed by Tschannen-Moran and Woolfolk Hoy (2001) were not supported by a factor analysis of the data in this study. Instead, the factor analysis suggested a single factor and so this general teaching self-efficacy was used for the regression analyses (see Table 6). Furthermore, the scale authors indicate that using the self-efficacy scale as a composite is acceptable.

Regression Analyses

Before performing the regression analyses, all regression and moderation assumptions were examined (Baron & Kenny, 1986). To reduce multicollinearity, the predictors were centered. To explore the moderator effect of self-efficacy on the relationship between job satisfaction and intent to turnover, the turnover intentions variable was regressed on job satisfaction and self-efficacy, and then on the interaction of these two predictors. The product of the two predictors carries the interaction effect after these two predictors have been first entered into the regression equation. Evidence for a moderator effect is found when there is a significant increase in the multiple R^2 after entering the interaction term, as indicated by a significant incremental F test.

This hierarchical moderated multiple regression analysis (Aiken & West, 1991) was used to test the first hypothesis that teacher self-efficacy would moderate the relation between job satisfaction and intent to turnover. Results of the omnibus multiple regression analysis were significant ($R^2 = .342$, $F(3, 149) = 23.35$, $p < .001$). However, as can be seen in Table 7, the interaction of self-efficacy and job satisfaction was not significant ($F(1, 146) = 0.59$, $p = .45$). Hypothesis 1 of this study was not supported.

Another hierarchical moderated multiple regression was conducted to test the second hypothesis that teacher self-efficacy would moderate the relation between job satisfaction and intentions to transfer. Results of the omnibus multiple regression analysis were significant ($R^2 = .182$, $F(3, 149) = 10.85$, $p < .001$). As can be seen in the results presented in Table 8, the interaction of self-efficacy and job satisfaction uniquely accounts for about 3 percent of variance in transfer intentions ($F(1, 146) = 4.57$, $p < .05$). While the interaction is significant, it does not support Hypothesis 2 of this study. Unexpectedly, the strongest

negative relationship between job satisfaction and transfer intention is found among individuals with low self-efficacy rather than high self-efficacy. This interaction effect is illustrated in Figure 1 in which regression lines produced when the transfer intentions variable is regressed on job satisfaction for each of three levels of self-efficacy (one standard deviation above the mean, at the mean, and one standard deviation below the mean) are presented.

Post Hoc Regression Analyses

To explore the robustness of the interaction effect, I controlled for general turnover intentions. Since transfer and turnover intentions were highly correlated ($r = .56, p < .001$) and conceptually the items for these two scales were not significantly dissimilar, transfer intentions was regressed on the predictor variables, controlling for turnover intentions. Results indicated that even while controlling for overall turnover intentions the interaction effect was still significant; $R^2 = .182, F(3, 149) = 10.85, p < .001$ (see Table 9).

Section IV: Discussion

Numerous predictor variables have been investigated by organizations looking for ways to reduce employee turnover. The purpose of the current study was to present a fuller understanding of the link between job satisfaction and two forms of employee turnover: job transfer and turnover intentions. The aim, more specifically, was to examine how the relationships between job satisfaction and these two forms of withdrawal intentions among teachers are influenced by self-efficacy. This discussion will first review the goals of the study before reviewing the results of the study. Next, the hypotheses will be discussed with a focus on findings, limitations, and future research suggestions specific to each hypothesis.

As previously noted in the introduction of this report, eight percent of teachers transfer to a different school each year and another eight percent of teachers quit teaching altogether yearly (Job Openings and Labor Turnover Survey [JOLTS], 2006). This study set out to discern why some teachers choose to leave one school for another while others choose to leave the teaching profession altogether. This study was also intended to contribute to a fuller understanding of turnover models for the general workforce. Dalton and Wimbush (1998) note that there are hundreds of empirical studies concerning employee turnover, but virtually no empirical attention to the consequences of employee transfer. Several other authors have also noted the lack of research on employee transfer (Baysinger & Mobley, 1984; Dalton & Todor, 1993; Gustafson, 1982). Furthermore, Jackofsky and Peters (1983) note that considering both job turnover (transfer) and organizational turnover (quitting) should provide a more complete representation of turnover phenomena. This study not only looked differentially at transfer and turnover, but also examined how self-efficacy perceptions influence different types of turnover intentions. While many individual

difference variables have been examined as predictors or moderators of the relationship between job satisfaction and turnover intentions, to my knowledge, self-efficacy has not been thoroughly researched in this role (Allen, Weeks, & Moffitt, 2005), nor has self-efficacy been considered as a predictor or moderator in turnover research in which the sample consisted of teachers.

Self-Efficacy and Withdrawal Intentions

To investigate the possible moderating role of self-efficacy in the relationship between job satisfaction and turnover intentions and between job satisfaction and transfer intentions two hypotheses were proposed. The first hypothesis proposed that teacher self-efficacy would moderate the relationship between low job satisfaction and intentions to leave the teaching profession in such a way that teachers with low teaching self-efficacy would be more likely to quit teaching than teachers with high teaching self-efficacy. This hypothesis was not supported. While job satisfaction was found to be significantly and negatively related to turnover intentions, self-efficacy did not moderate the relationship. Although self-efficacy significantly correlated with job satisfaction, it did not correlate with turnover intentions. Contrary to what was hypothesized, teaching self-efficacy does not appear to be systematically related to the job satisfaction/turnover intentions relationship. While the self-efficacy literature would suggest that this self-perception should be involved in decisions teachers make about leaving the profession, the findings of this study do not support this position. Perhaps because only 18% of the participants in the study indicated that they had even moderate intentions to quit (3.5 on a 5-point scale), the potential role of self-efficacy was severely underestimated. On the other hand, the correlation between job satisfaction and turnover intentions was not similarly attenuated due to restriction of range.

Although Hypothesis 1 was not supported, questions to be addressed by future research are raised. One such question is to what degree do perceived alternatives influence teachers' decisions to quit, and further, to what extent does self-efficacy impact these perceptions? Past models of turnover have described how perceived alternatives mediate the impact of job satisfaction on turnover intentions (e.g., Hom & Griffeth, 1991; March & Simon, 1958; Price, 1977). The impact of self-efficacy in the job satisfaction/turnover intentions relationship may have been demonstrated if perceived alternatives had also been included as a variable of interest in the investigation (Hulin, Roznowski, & Hachiya, 1985; Mobley, Homer, & Hollingsworth, 1978). Thus, future exploration of the relationships between perceived alternatives, self-efficacy, and both turnover and transfer intention is suggested. For instance, Maertz and Griffeth (2004) found that self-efficacy impacts beliefs about the quality of job alternatives that can be obtained and the certainty of obtaining those alternatives. Teachers with low self-efficacy may not see another teaching position as a viable alternative and so may stay in their current position or quit teaching altogether based on their level of satisfaction. Similarly, teachers with high self-efficacy may decide to transfer to other schools if they are dissatisfied with their schools because they see positions at other schools as possible alternatives. By looking at the relationship between teaching self-efficacy and perceived alternatives (for both acquiring another teaching job and acquiring a non-teaching job) future research might be able to better probe the relationship between self-efficacy and a teachers' decisions to quit teaching or transfer schools.

The results from Hypothesis 1 indicate that efficacy does not moderate quitting the profession of teaching, but the results from Hypothesis 2 demonstrate that for those teachers thinking about leaving for another teaching job, self-efficacy matters. Since thinking about

leaving one job for another similar one is a different process than thinking about leaving a profession, a second hypothesis was proposed to investigate the possible moderating role of self-efficacy in the relationship between job satisfaction and transfer intentions. Self-efficacy did significantly moderate this relationship. In fact, post-hoc analyses demonstrated that self-efficacy moderated the relationship between job satisfaction and transfer intentions even when controlling for turnover intentions. Hypothesis 2, however, was not supported because it was proposed that teachers with high teaching self-efficacy would be more likely to transfer than teachers with low teaching self-efficacy. Instead, I found that teachers reporting *low* teaching self-efficacy were more likely to transfer than teachers reporting *high* teaching self-efficacy.

While these results contradict the proposed hypothesis, they still make theoretical sense. They indicate that while teachers desire to hold jobs that allow them to feel satisfied and efficacious at work, they particularly desire to remain a teacher. For those who are dissatisfied, their commitment to the teaching profession, in effect, causes them to think about moving to another school instead of leaving the profession. For those in professions with a high calling orientation, such as teaching, employing a commonly used measure to assess turnover intentions may be inappropriate. Since individuals with a calling orientation gain fulfillment from the work itself (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), a better instrument may measure both teachers' intentions to stay committed to the job at a specific school, versus their intentions to stay committed to the teaching profession. Interestingly, my results suggest that highly efficacious teachers may feel like they have the ability to be effective teachers wherever they are located, and decide to stay in spite of the

dissatisfying situation, perhaps in hopes of influencing change within the school. In these explanations two themes arise; resiliency and contextual effects.

When teachers are faced with a challenging or dissatisfying situation, resiliency may help compensate. The results of this study seem to indicate that self-efficacy plays a role in allowing for resilience. The role of high self-efficacy in impacting teachers' decisions to stay when they are dissatisfied with their job is not altogether unexpected. Bandura (1977, 1982) found that efficacy judgments regulate how much effort people exert and how long they persist when faced with challenges. Furthermore, Wood and Bandura (1989) and Bandura (1993) found that self-efficacy beliefs are crucial determinants of whether individuals will persevere in the face of difficulties and be resilient to failure. More specifically, past research has shown that teachers with high self-efficacy are persistent (Woolfolk, 2001). Teaching self-efficacy influences the amount of effort a teacher puts into teaching as well as the degree of persistence exhibited when faced with challenges such as student discipline problems (Ross, Cousins, & Gadalla, 1996). Ebmeier (2003) found that teachers with higher efficacy express more commitment to teaching when responding to items such as "I would leave teaching for another profession if I could" (reverse scored), and "I tell my friends that I will stay in teaching for many years to come." Together, these studies offer an explanation for why teachers in my study with high-self efficacy chose to remain in the school even when they were dissatisfied and why teachers who were dissatisfied and had low self-efficacy were more likely to yield and transfer to other schools – but not leave the teaching profession. In this study, it seems that self-efficacy acted as a buffer for teachers that were dissatisfied with their schools allowing them to remain resilient and committed to the teaching profession.

While this explanation is certainly plausible, neither teacher resilience nor persistence was directly measured in this study, so future research needs to explore this more directly. Secondly, we are limited in our explanation of resiliency affecting our results because we did not collect information on actual or perceived challenges the teachers faced. Future research should consider investigating the relationships between self-efficacy and resiliency when trying to explain transfer intentions. It is also recommended that future research consider measuring the actual or perceived challenges teachers face and measuring teacher commitment to the profession.

The impact of self-efficacy on teacher resiliency is one possible explanation for the results of this study. A second explanation is that the measures did not function as expected. So far in the discussion of the results of this study it has been assumed that the measured variables adequately reflected the constructs. For example, I appropriately anticipated the need to divide turnover intentions into two sub-constructs, turnover from the profession and transfer from one school to another. However, it is possible that the measure of teacher self-efficacy did not measure what it was intended to measure. Specifically, it is possible that the teacher self-efficacy scale did not measure an aspect of the self as much as it measured a teacher's assessment of how the school environment impacts his or her ability to complete the job.

In light of the results obtained in this study, the measurement of teacher self-efficacy is of concern for several reasons. Factor analysis did not produce the three moderately correlated factors (Efficacy in Student Engagement, Efficacy in Instructional Practices, and Efficacy in Classroom Management) that Tschannen-Moran and Woolfolk Hoy (2001) have reported to be found consistently. In this study, the items of the teacher self-efficacy scale

loaded onto a single factor. These results indicate that perhaps more work is required to improve the measurement of teacher self-efficacy.

Not only is the construct validity of this scale in question because of its factor structure, but also the findings of this study indicate that it is possible that this scale may have been assessing the participants' attributions about the school they were working in (i.e., the situation) more than their attributions about their *own* capabilities (i.e., self-efficacy). For example, as several items reference students, the participants may have responded to the items with the abilities (or lack thereof) of specific students in mind. Similarly, participants may have based their responses to items regarding how well they can establish a classroom management system, implement alternative strategies, and assist families upon the resources and support offered at their school rather than upon their assessment of personal resources at their disposal regardless of the working conditions of their specific school. In other words, it is plausible that the teachers' perceptions of their self-efficacy in a specific organizational context were being measured in this study rather than their generalized self-efficacy. Therefore, it is conceivable that at least some teacher's with high self-efficacy are, in a sense, being misidentified by the measure as having low self-efficacy.

If teachers were responding to the "self-efficacy" items in this manner, our results are logical – but the rationale is certainly different than what was originally proposed. Teachers with "low self-efficacy" may be attributing their lack of effectiveness to how they see their efforts in light of the current working conditions at their school. In other words, these teachers may be taking into account their poor working conditions when considering their efficacy. These teachers may be thinking that they might perform better at a different school, with a different principal, or with different students. For example, a teacher may feel that he

or she could control disruptive students better if the administration would enforce consequences such as suspension for fighting in the classroom. Similarly, a teacher may feel that he or she would be better able to implement alternative strategies in the classroom at school with more resources (e.g., computers, library, volunteers, etc.). It is not that these teachers want to give up teaching, but that they may be looking for a new setting in which to teach. In other words, they are more likely to seek a transfer.

The possibility that our measure of general self-efficacy was being used by respondents in response to the confines of the situation is not unfounded in the literature. There is evidence in previous research that suggests that self-efficacy is tied to the situation. Controversy has arisen regarding whether self-efficacy is best conceptualized as a situation-specific state or task-specific individual state (Eden & Aviram, 1993; Kirsch, 1986). This debate is important when considering whether self-efficacy can be measured without regard to the situation. Kirsch (1986) asserts that self-efficacy is determined in light of the difficulty and nature of the task and cannot be considered only a perception of an individual's abilities. In a similar vein, Eden and Aviram (1993) found that a supportive environment is more likely to help individual with low self-efficacy increase their efficacy than those with high self-efficacy, supporting the idea that the environment and efficacy are interconnected. The research of Stajkovic and Luthans (1998) indicates that factors present in naturalistic environments, such as workplaces, impact task specific self-efficacy. They found that complex work situations weakened the relationship between self-efficacy and performance. Some of their conclusions have interesting implications when looking at general self-efficacy in a strong work environment like a school. First they suggest that if employees are not provided with accurate definitions of the task they are to perform and the task circumstances

under which they are to perform, employees may not be able to correctly assess the complex task demands, will lack accurate information for modifying their effort, and then may not be able to accurately assess their perceived efficacy. They also suggest that since complex tasks have greater cognitive and behavioral demands, individuals may not feel that they possess enough personal capabilities to successfully perform in complex situations.

This debate is also found in the literature on teacher self-efficacy. Research on teacher self-efficacy provides evidence suggesting that general self-efficacy is a variable impacted by the teacher's work context. Lee, Dedrick, and Smith (1991) found that school features influence teachers' views of their work. Lee et al. specifically explored the link between a school's social organization, teacher self-efficacy, and job satisfaction. Their results suggested that a teacher's self-efficacy is fostered by a cooperative work environment and reasonable teacher autonomy in the classroom. Similarly, Taylor and Tashakkori (1995) found that two dimensions of school climate (namely, faculty communication and lack of obstacles to teaching) are predictors of teacher self-efficacy. School climate variables have also been related with the development of teacher self-efficacy. Hoy and Woolfolk (1993) found that a healthy school climate, consisting of institutional integrity, principal influence, consideration, resource support, morale, and academic emphasis, was associated with the development of teacher self-efficacy among new teachers.

Future research should be conducted on refining the measurement of general self-efficacy among teachers. For example, future research could focus on the teacher's relationship with his/her principal. Research has found that relationships can be predictive of turnover, especially in work settings more oriented to working with others (Mossholder, Settoon, & Henagan, 2005), such as education. Ma and MacMillan (1999) found that a

positive relationship between teachers and school administrators is associated with increased satisfaction, especially among inexperienced teachers. Principal behavior has been linked to teacher efficacy, through supervision, active interest in improvement, and other facets of support (Ebmeier, 2003; Hoy & Woolfolk, 1993). By measuring the quality of principal-teacher interpersonal relationships, future research may be able to more fully appreciate how this particular organizational factor influences job satisfaction, turnover and transfer intentions, and most especially, teacher self-efficacy.

Implications and Future Research

While future research needs to clarify further some of the relationships explored in this study, important implications from the results of this study can be formulated. Also, even though the findings are predicated upon the work experiences of teachers, this study has implications for other workplaces as well. In schools we have found that self-efficacy matters when teachers are dissatisfied and considering transferring. School interventions that focus on increasing self-efficacy in teachers may be one option to keep teachers from transferring schools since teachers high in self-efficacy are more likely to stay. Such an intervention would need to focus on how teachers can be successful even in difficult situations. Another implication of this study is that the school context matters. As the school environment may affect teachers' efficacy, the administration would be advised to assess the school environment to identify and change the situational constraints that they can control that are impeding teachers' ability to do their jobs. These implications can also be applied to other occupations. Teachers can transfer from teaching at one school to a similar teaching position at another school. Likewise, employees (be they in sales, engineering, accounting, etc.) with low efficacy can become dissatisfied and consider employment at another organization doing

similar work. They may feel that the resources available to them at their current organization are insufficient to successfully complete their jobs and this may impact their efficacy. Other possibilities of organization context that may affect employees' self-efficacy may include negative relationships with coworkers or supervisors, an overload of tasks, or a poor working climate. These situational constraints impact not only their work, but also how they feel about their ability to do their work. An employee with high self-efficacy, whether he or she is a teacher or someone in another occupation, may be able to resist or overcome these obstacles and remain in their current organization.

This study looked only at a small number of the possible factors that contribute to turnover and transfer intentions. Future studies should expand upon findings from this study. First, it is important to distinguish between withdrawal behaviors when probing the relationships between self-efficacy, job satisfaction and withdrawal intentions and behaviors. For instance, the results of this study did not support the hypothesis regarding turnover, but were significant when looking at transfer. It follows then that researchers should take into account a variety of intentions and behaviors when studying withdrawal. Second, I have learned that while self-efficacy does not moderate the relationship between job satisfaction and turnover intentions it does impact the relationship between job satisfaction and transfer intentions. Future research should further probe the relationship between self-efficacy, job satisfaction and actual transfer behavior. A third implication for research highlights the importance of considering how the context affects the way someone responds to what are seemingly self-oriented variables. We did not have the ability to parcel apart when participants were considering self-efficacy alone from what they were considering their self-efficacy in regards to organizational constraint. Future research should take into account how

responses to generalized self-efficacy measures are impacted by constraints found within the immediate work environment.

Limitations

While the findings from this study are promising, there are several methodological limitations that should be noted. The first limitation concerns the use of turnover intention measures rather than actual behavior in the analyses. Dalton, Johnson, and Daily (1999) have voiced concerns regarding conducting research using “intent to . . .” variables as the relationship between the tendency and actual variable is low. However, measuring intent to leave an organization has gained much empirical and theoretical support as an important predictor of actual turnover (Kraut, 1975; Mobley, Horner, & Hollingsworth, 1978; Prestholdt, Lane, & Mathews, 1987; Steele & Ovalle, 1984; Tett & Meyer, 1993).

A second limitation lies within the selected sample. The fact that the participants were teachers should not matter as their work experiences are similar enough to other professions. The concern with the sample is that all of the participants were employed in the same rural county. This along with the cross-sectional, single source sample limits the generalizability of the findings. Arguably, this limitation may be offset by the advantage of drawing a sample from a field setting. More research is necessary to provide evidence of the generalizability for the findings of the present study.

The self-efficacy measure used is another limitation. The results of the current study lead to additional questions regarding the measurement of self-efficacy. The current study calls into question the construct validity of the measure and points to the need for validation research. Although self-efficacy moderated the relationship between job satisfaction and

transfer using this measure, the findings were not consistent with what would be predicted by self-efficacy theory. In particular, my results suggest that the Teacher Self-Efficacy scale may be measuring the teachers' sense of how responsive the environment is rather than a teacher's self-perceived ability as a teacher.

Conclusion

Despite the aforementioned limitations, I am still optimistic about the results and implications of this study. This study contributes to the understanding of turnover and transfer behavior and the role of self-efficacy in withdrawal decisions. I have found that self-efficacy moderates the relationship between jobs satisfaction and transfer intentions such that teachers with lower self-efficacy are more likely to consider transferring. On the other hand, it may be that teachers with low self-efficacy did not quit teaching altogether because they did not perceive any viable job alternatives outside of teaching. By explicitly looking at perceived alternatives we may better understand how efficacy plays a role in choosing to leave one job for another, or to quit practicing a profession. Other areas for further exploration include the continued development and validation of generalized self-efficacy measures for teachers. The current study has contributed to the understanding of job transfer and self-efficacy. Applied to the workplace this study can help employers in teaching and a variety of other fields to better understand and control factors associated with employee turnover and transfer.

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Table 1
Descriptive Statistics for Demographic Variables

Variable	Mean	S.D.	Range
1. Tenure at School (years)	6.07	6.96	1-31
2. Teaching Tenure (years)	10.95	9.66	1-33
3. Number of Committees	1.61	1.45	0-5
4. Number of After School Activities	.76	.99	0-4

Note. N = 150.

Table 2
Frequency Statistics for Demographic Variables

Variable	Number	Percent
Gender		
Male	25	16.7%
Female	125	83.3%
Age		
20-30 years old	47	31.4%
31-40 years old	35	23.3%
41-50 years old	34	22.7%
51-60 years old	29	19.3%
61 or older	5	3.4%
Race		
Asian	1	0.7%
Black or African-American	23	15.3%
White/non-Hispanic	120	80.0%
Other	6	4.0%
Marital Status		
Married	94	62.7%
Separated or Divorced	11	7.3%
Widowed	3	2.0%
Never Married	37	24.7%
Living with Partner	5	3.3%
Education Level		
Associates	3	2.0%
Bachelors	116	77.3%
Masters	30	20.0%
Doctorate	1	0.7%
Route of Teacher Preparation		
Traditional	106	70.7%
Lateral Entry	37	24.7%
Other	7	4.7%

Note. N = 150.

Table 3
Means, Standard Deviations, and Intercorrelations between Study Variables

Variable	Mean	S.D.	1	2	3	4
1. Job Satisfaction	3.65	0.61	(.91)			
2. Teacher Self-Efficacy	3.85	0.48	.36**	(.93)		
3. Intent to Turnover	2.27	1.17	-.56**	-.14	(.81)	
4. Intent to Transfer	1.65	0.82	-.40**	-.13	.56**	(.78)

Note. N = 150. ** $p < .01$. Coefficient alpha reliability estimates are in parentheses.

Table 4
Factor Loadings for Turnover and Transfer Intention Items

Item	Factor 1 loadings	Factor 2 loadings
1. I intend to leave this school within a year.	.87	.48
2. I intend to find a new job.	.99	.45
3. I often think about quitting my job.	.47	.21
4. I will likely teach at another school next year.	.70	.63
5. I will likely teach school in another state next year.	-.49	.93
6. I will likely teach in a private school next year.	.35	.78
Eigenvalues	3.38	1.15
Variance	56.34	19.14

Note. N = 150.

Table 5
Factor Loadings for Job Satisfaction Items

Item	Factor loadings
1. being able to keep busy all the time	.51
2. the chance to work alone on the job	.58
3. the chance to do different things from time to time	.62
4. the chance to be "somebody" in the community	.64
5. the way my principal handles the faculty and staff	.67
6. the competence of my supervisor in making decisions	.63
7. being able to do things that don't go against my conscience	.69
8. the way my job provides for steady employment	.55
9. the chance to do things for other people	.58
10. the chance to tell people what to do	.40
11. the chance to do something that makes use of my abilities	.64
12. the way school policies are put into practice	.74
13. my pay and the amount of work I do	.22
14. the chances for advancement on this job	.44
15. the freedom to use my own judgment	.70
16. the chance to try my own methods of doing job	.69
17. the working conditions	.70
18. the way my coworkers get along with each other	.48
19. the praise I get for doing a good job	.66
20. the feeling of accomplishment I get from the job	.64
Eigenvalue	7.82
Variance	39.12

Note. N = 150.

Table 6
Factor Loadings for Teaching Self-Efficacy Items

Item	Factor loading
1. How much can you do to get through to the most difficult students?	.53
2. How much can you do to help your students think critically?	.49
3. How much can you do to control disruptive behavior in the classroom?	.63
4. How much can you do to motivate students who show low interest in school work?	.51
5. To what extent can you make your expectations clear about student behavior?	.57
6. How much can you do to get students to believe they can do well in school work?	.62
7. How well can you respond to difficult questions from your students ?	.53
8. How well can you establish routines to keep activities running smoothly?	.65
9. How much can you do to help your students value learning?	.69
10. How much can you gauge student comprehension of what you have taught?	.60
11. To what extent can you craft good questions for your students?	.63
12. How much can you do to foster student creativity?	.64
13. How much can you do to get children to follow classroom rules?	.76
14. How much can you do to improve the understanding of a student who is failing?	.63
15. How much can you do to calm a student who is disruptive or noisy?	.68
16. How well can you establish a classroom management system with each group of students?	.74
17. How much can you do to adjust your lessons to the proper level for individual students?	.63
18. How much can you use a variety of assessment strategies?	.57
19. How well can you keep a few problem students from ruining an entire lesson?	.65
20. To what extent can you provide an alternative explanation or example when students are confused?	.58
21. How well can you respond to defiant students?	.59
22. How much can you assist families in helping their children do well in school?	.46
23. How well can you implement alternative strategies in your classroom?	.71
24. How well can you provide appropriate challenges for very capable students?	.65
Eigenvalue	9.75
Variance	40.61

Note. N = 150.

Table 7
Moderator Regression Analysis for Intention to Turnover

Step	Variable	B	R ²	ΔR ²	df	F(step)
1	Job Satisfaction (JS)	-1.15	.563	.317	1, 148	68.75***
2	Teacher Self-Efficacy (TSE)	.171	.567	.004	1, 147	0.94
3	JS * TSE	.224	.569	.003	1, 146	0.59

Note. N = 150. *p < .05. **p < .01. ***p < .001. B is the unstandardized regression weight.

Table 8
Moderator Regression Analysis for Intention to Transfer

Step	Variable	B	R ²	ΔR ²	df	F(step)
1	Job Satisfaction (JS)	-.539	.156	.156	1, 148	27.45***
2	Teacher Self-Efficacy (TSE)	.026	.157	.000	1, 147	0.04
3	JS * TSE	.480	.182	.026	1, 146	4.57*

Note. N = 150. *p < .05. **p < .01. ***p < .001.

B is the unstandardized regression weight.

Table 9
Moderator Regression Analysis for Intention to Transfer Controlling for Turnover Intentions

Step	Variable	B	R ²	ΔR^2	df	F(step)
1	Turnover Intentions	-.341	.316	.316	1, 148	68.444***
2	Job Satisfaction (JS)	-.148	.325	.009	1, 147	1.985
3	Teacher Self-Efficacy (TSE)	-.032	.326	.000	1, 146	.072
4	JS * TSE	.404	.344	.018	1, 145	3.987*

Note. N = 150. *p < .05. **p < .01. ***p < .001. B is the unstandardized regression weight.

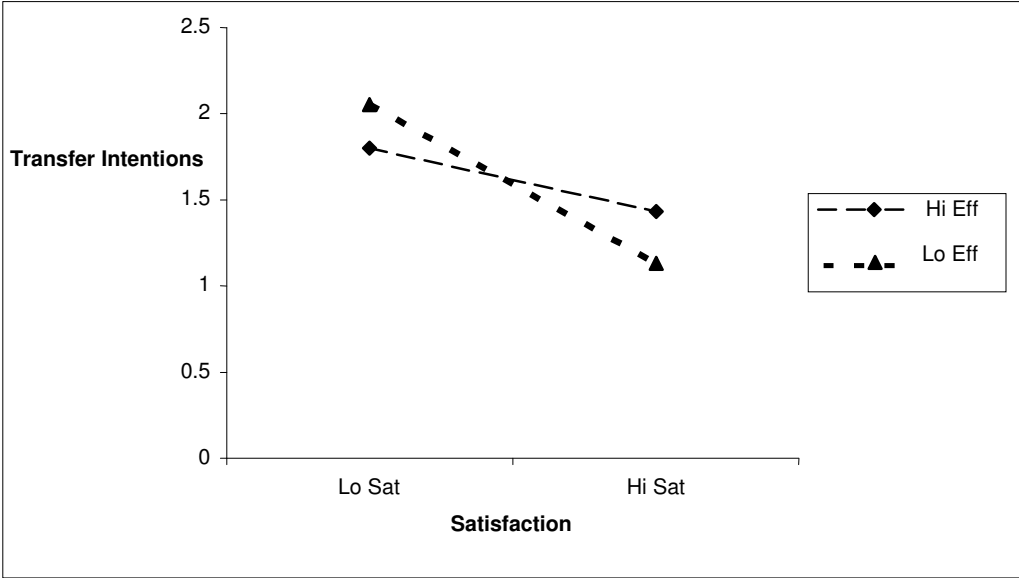


Figure 1. Simple slopes analysis for self-efficacy moderating job satisfaction and intent to transfer.

APPENDICES

Appendix A – Introduction Letter

May 1, 2006

Dear Teacher,

A few days from now you will receive a request from me in your mailbox to fill out an online questionnaire for important research that is being conducted to assess the way you feel about your job as a teacher. The questionnaire will contain a variety of different questions about yourself, your work environment, your thoughts on your job as a teacher, and your intentions to leave your job. The questionnaire will only take 10-20 minutes to complete. The request will have both the website address of the survey and a personal access number that you will use to log into the survey so that your answers will be protected.

I am writing in advance to introduce myself to you and to tell you a little bit about my background. My name is Clara Hess and I am a graduate student at North Carolina State University and a former Louisburg High School social studies teacher. I worked for Franklin County for a few years and I am excited to have the opportunity to conduct research in a school setting. I am currently pursuing my Master's degree in industrial and organizational psychology, which is an area of psychology that studies human behavior in the workplace. The questionnaire that I will ask you to fill out will be used for my Master's thesis research. Your participation in this study is voluntary and is not a condition of your employment. You may choose not to participate or if you decide to participate, you may withdraw from the study without penalty.

I would like to thank you in advance for taking the time to participate. In addition, if you complete the online questionnaire by June 9, 2006, you will be entered in a random drawing in which three teachers from participating schools will each win a \$25 gift certificate from the researcher. The winners will get to choose a gift card from Target, Barnes and Noble, or Triangle Town Center.

If you have any questions please feel free to email me at cehess@ncsu.edu.

Sincerely,

Clara Hess

Appendix B – Directions for Participating in Survey

May 9, 2006

Dear (teacher's name),

A few days ago you received a letter from me in your box regarding an online survey. Tomorrow, May X, 2006, is the official day of collection. I will be on campus from (insert time) until (insert time) to assist you if you have any questions, or you may email me at cehess@ncsu.edu.

To complete the survey and be entered into the drawing for a \$25 gift card to Target, Barnes and Noble, or Triangle Town Center **please go to www.xxxx.com to complete the survey tomorrow**. Remember that your responses are confidential. Your personal access number is _____.

Thank you again for your time, cooperation, and participation.

Sincerely,

Clara Hess

Appendix C – Reminder Letter

May 30, 2006

Dear (teacher's name),

Approximately two weeks ago, you should have received a request from me in your school mailbox to complete an online questionnaire. If you have already completed this questionnaire, I want to take this opportunity to thank you for your participation. If you have not completed the survey, there is still time to complete it and to be entered for a **chance to win a \$25 gift card for Target, Barnes and Noble, or Triangle Town Center**. If you complete the online survey by June 9, 2006, you will be entered into a random drawing in which three teachers from participating schools will each win.

To complete the online survey please go to <http://www.xxxxxx.com>. The website will ask you to enter you personal access number; yours is _____.

The survey should only take about 15-25 minutes of your time. If you have any questions or would like to get in touch with the researcher, please contact me by emailing cehess@ncsu.edu.

Sincerely,

Clara Hess

Appendix D – Survey

Dear Teacher,

Thank you for taking the time to participate in this research project.

As a participant in this study, your responses will be kept confidential. Neither your supervisor nor another representative from the school will see your responses. Your participation is greatly appreciated.

Job Satisfaction

Directions: Please indicate your opinion about each of the statements below regarding your satisfaction with your current job. Your answers are confidential.

	Very dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very Satisfied
On my present job, this is how I feel about:					
1. being able to keep busy all the time	1	2	3	4	5
2. the chance to work alone on the job	1	2	3	4	5
3. the chance to do different things from time to time	1	2	3	4	5
4. the chance to be "somebody" in the community	1	2	3	4	5
5. the way my principal handles the faculty and staff	1	2	3	4	5
6. the competence of my supervisor in making decisions	1	2	3	4	5
7. being able to do things that don't go against my conscience	1	2	3	4	5
8. the way my job provides for steady employment	1	2	3	4	5
9. the chance to do things for other people	1	2	3	4	5
10. the chance to tell people what to do	1	2	3	4	5
11. the chance to do something that makes use of my abilities	1	2	3	4	5
12. the way school policies are put into practice	1	2	3	4	5
13. my pay and the amount of work I do	1	2	3	4	5
14. the chances for advancement on this job	1	2	3	4	5
15. the freedom to use my own judgment	1	2	3	4	5
16. the chance to try my own methods of doing job	1	2	3	4	5
17. the working conditions	1	2	3	4	5
18. the way my coworkers get along with each other	1	2	3	4	5
19. the praise I get for doing a good job	1	2	3	4	5
20. the feeling of accomplishment I get from the job	1	2	3	4	5

Teacher Self-Efficacy Scale

Directions: These questions are to help us gain a better understanding of the kinds of things teachers believe they are personally capable of doing. Please indicate your opinion about each of the statements below. Your answers are confidential.

	Nothing	Very little	Some influence	Quite a bit	A great deal
1. How much can you do to get through to the most difficult students?	1	2	3	4	5
2. How much can you do to help your students think critically?	1	2	3	4	5
3. How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5
4. How much can you do to motivate students who show low interest in school work?	1	2	3	4	5
5. To what extent can you make your expectations clear about student behavior?	1	2	3	4	5
6. How much can you do to get students to believe they can do well in school work?	1	2	3	4	5
7. How well can you respond to difficult questions from your students?	1	2	3	4	5
8. How well can you establish routines to keep activities running smoothly?	1	2	3	4	5
9. How much can you do to help your students value learning?	1	2	3	4	5
10. How much can you gauge student comprehension of what you have taught?	1	2	3	4	5
11. To what extent can you craft good questions for your students?	1	2	3	4	5
12. How much can you do to foster student creativity?	1	2	3	4	5
13. How much can you do to get children to follow classroom rules?	1	2	3	4	5
14. How much can you do to improve the understanding of a student who is failing?	1	2	3	4	5
15. How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5
16. How well can you establish a classroom management system with each group of students?	1	2	3	4	5
17. How much can you do to adjust your lessons to the proper level for individual students?	1	2	3	4	5
18. How much can you use a variety of assessment strategies?	1	2	3	4	5
19. How well can you keep a few problem students from ruining an entire lesson?	1	2	3	4	5
20. To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5
21. How well can you respond to defiant students?	1	2	3	4	5
22. How much can you assist families in helping their children do well in school?	1	2	3	4	5
23. How well can you implement alternative strategies in your classroom?	1	2	3	4	5
24. How well can you provide appropriate challenges for very capable students?	1	2	3	4	5

Intentions to Leave

Directions: Please respond frankly to each of the statements below. Your answers are confidential.

1. I intend to leave this school within a year.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
2. I intend to find a new job.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
3. I often think about quitting my job.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
4. I will likely teach at another school next year.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
5. I will likely teach school in another state next year.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
6. I will likely teach in a private school next year.
Strongly disagree, disagree, neither agree nor disagree, agree, strongly agree
7. I have been looking for jobs at other schools.
Yes, No; No, but I plan to do so; No, and I do not plan to do so.
8. I have told the school that I am not returning next year.
Yes; No, I am returning; No, but I plan to do so before the end of the school year
9. I have sent my resume to other schools in search of a new job.
Yes; No; No, but I plan to do so; No, and I do not plan to do so.
10. I have been looking on the Internet for teaching jobs at other schools.
Yes, No; No, but I plan to do so; No, and I do not plan to do so.

Demographic Information

- 1) Please enter your Personal Access Number
- 2) At what school do you teach? [Drop down option for each participating school.]
- 3) Age: [Drop down: 20-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61+]
- 4) Gender: [male, female]
- 5) Race: [Asian, Native Hawaiian or other Pacific Islander, Black or African American, Hispanic, White/non-Hispanic, other:_____]
- 6) Marital Status: [legally married, separated or divorced, widowed, never married, living with partner]
- 7) Educational Level [associates , bachelors, masters, doctorate, other:_____]
- 8) Route of Teacher Preparation [traditional teacher education program, lateral entry, other: _____]
- 9) How many years have you been teaching at your current school? [open ended in years]
- 10) How many years have you been teaching total (at any school)? [open ended in years]
- 11) What courses do you teach [Math, Science, English, Visual and Performing Arts, Foreign Language, Social Studies, Technology, Vocational, Exceptional Children/Special Education, Physical Education, English as a Second Language, other:_____]
- 12) On how many committees do you serve? [open ended]
- 13) In what extracurricular activities do you participate? (i.e. coaching a team or sponsoring a club)? [open ended]
- 14) Approximately what time do arrive on campus? [open ended]
- 15) Approximately what time do leave campus? [open ended]
- 16) Are you teaching in your area of certification? [yes, no]

Appendix E – Informed Consent Form

Dear Teacher,

My name is Clara Hess and I am a graduate student at North Carolina State University. I am currently pursuing a Master's degree and working on my thesis. I am conducting research to assess the way you feel about your job as a teacher. In order to carry out this research, I am collecting information from you via an online survey. You will be asked to fill out a questionnaire, which will involve answering questions about yourself, your work environment, your thoughts on your job as a teacher, and your intentions to leave your job.

As a participant in this study, your responses will be kept confidential. Neither your supervisor nor another representative from the school will see your responses. No results indicating you as the respondent will be provided to your employer. None of your responses regarding your intention to stay or leave the school will be given to the school administration or another representative of the school system. Responses to questions regarding job satisfaction and self-efficacy may be provided to school administrators in large groups of people only (i.e. Teachers who have been teaching for more than 5 years feel that they can affect student motivation more than teachers who have been teaching for less than 5 years). No individual data will be reported to the school administration.

INFORMATION

By reading and agreeing to this form, along with completing the accompanying survey, you are agreeing to participate in this project. If you agree to participate in this study, you will be asked to complete the questionnaire. Completing this survey should take approximately 15 to 25 minutes.

BENEFITS

Although there is no direct benefit to you from this study, your responses will contribute to knowledge regarding working conditions and teaching attitudes, which could help this organization and others to more effectively support teachers.

CONFIDENTIALITY

The information in the study records will be kept strictly confidential. Survey responses will be stored securely at the researcher's residence and will not be made accessible to your employer. No reference will be made in oral or written reports that could link you to the study.

COMPENSATION

If you complete this questionnaire by May 31, 2006, you will be entered into a drawing in which three teachers from participating schools will be selected randomly to receive a \$25 gift card. The winners will be contacted by the researcher and will choose whether they

want to receive a \$25 gift card from Target, Barnes and Noble, or Triangle Town Center from the researcher.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures, you may contact the researcher, Clara Hess at 919-369-3030. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Matthew Zingraff, Chair of the NCSU IRB for the Protection of Human Subjects in Research Committee, Mail Stop 8101, Raleigh, NC 27695 (919-513-1837)

CONSENT

Your participation in this study is voluntary and is not a condition of your employment. You may choose not to participate or if you decide to participate, you may withdraw from the study without penalty. If you withdraw from the study before data collection is completed, your data will be destroyed at your request.

"I have read and understand the above information. I agree to participate in this study and I am giving the researcher my consent to use my survey responses in the study."

If you agree with the above statement and wish to participate in the study, please proceed to the online survey. A survey submitted online to Clara Hess from you will indicate your willingness to participate. If you do not wish to participate in the study, you are free to do so, or to notify Clara Hess that you choose not to participate.

Thank you for your participation.

Participant's Signature

Date

Appendix F – Factor Analysis Output

Factor Analysis for Job Satisfaction Scale
Communalities

	Initial	Extraction
JSAT1	.443	.257
JSAT2	.485	.336
JSAT3	.524	.381
JSAT4	.519	.403
JSAT5	.734	.452
JSAT6	.689	.394
JSAT7	.554	.476
JSAT8	.389	.301
JSAT9	.508	.337
JSAT10	.275	.162
JSAT11	.533	.408
JSAT12	.650	.550
JSAT13	.318	.048
JSAT14	.364	.190
JSAT15	.725	.492
JSAT16	.719	.470
JSAT17	.568	.491
JSAT18	.517	.234
JSAT19	.646	.430
JSAT20	.512	.411

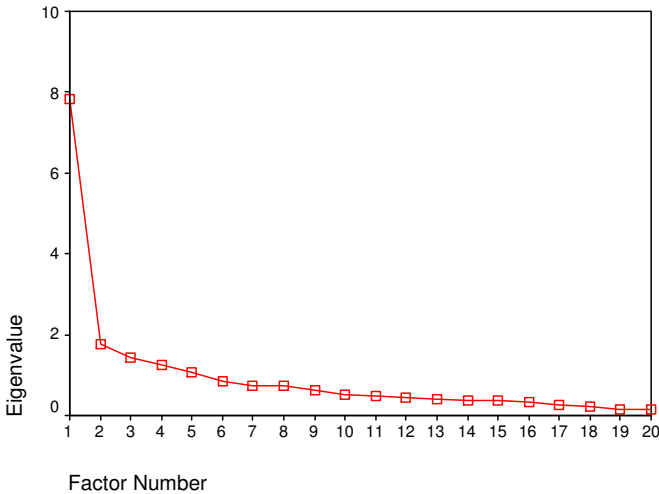
Extraction Method: Maximum Likelihood.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.823	39.116	39.116	7.221	36.106	36.106
2	1.747	8.734	47.851			
3	1.430	7.151	55.001			
4	1.263	6.314	61.315			
5	1.071	5.355	66.671			
6	.856	4.282	70.953			
7	.752	3.758	74.711			
8	.734	3.671	78.382			
9	.626	3.128	81.510			
10	.514	2.569	84.079			
11	.489	2.445	86.525			
12	.442	2.209	88.734			
13	.396	1.981	90.715			
14	.366	1.829	92.544			
15	.352	1.762	94.306			
16	.326	1.632	95.937			
17	.267	1.336	97.274			
18	.225	1.123	98.397			
19	.164	.818	99.215			
20	.157	.785	100.000			

Extraction Method: Maximum Likelihood.

Scree Plot



Factor Matrix(a)

	Factor 1
JSAT1	.507
JSAT2	.580
JSAT3	.617
JSAT4	.635
JSAT5	.672
JSAT6	.627
JSAT7	.690
JSAT8	.548
JSAT9	.581
JSAT10	.402
JSAT11	.639
JSAT12	.742
JSAT13	.219
JSAT14	.436
JSAT15	.701
JSAT16	.685
JSAT17	.701
JSAT18	.484
JSAT19	.655
JSAT20	.641

Extraction Method: Maximum Likelihood.
a. 1 factors extracted. 5 iterations required.

Goodness-of-fit Test

Chi-Square	df	Sig.
561.405	170	.000

Factor Analysis for Turnover and Transfer Intentions

Communalities^a

	Initial	Extraction
TOINT1	.753	.758
TOINT2	.789	.992
TOINT3	.248	.222
TOINT4	.569	.582
TOINT5	.607	.857
TOINT6	.534	.606

Extraction Method: Maximum Likelihood.

- a. One or more communality estimates greater than 1 were encountered during iterations. The resulting solution should be interpreted with caution.

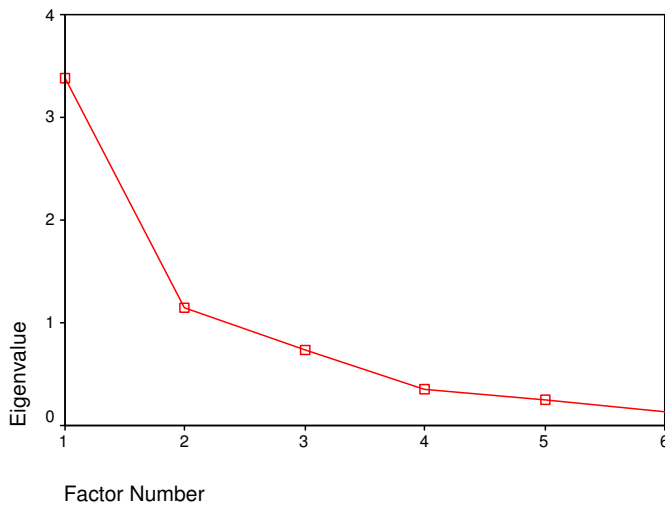
Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.381	56.342	56.342	2.735	45.576	45.576	2.816
2	1.148	19.140	75.482	1.282	21.364	66.940	2.333
3	.742	12.373	87.854				
4	.346	5.775	93.629				
5	.254	4.230	97.859				
6	.128	2.141	100.000				

Extraction Method: Maximum Likelihood.

- a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Scree Plot



Factor Matrix ^a

	Factor	
	1	2
TOINT1	.868	.075
TOINT2	.995	-.033
TOINT3	.470	-.021
TOINT4	.685	.337
TOINT5	.449	.809
TOINT6	.316	.711

Extraction Method: Maximum Likelihood.

- a. Attempted to extract 2 factors. More than 25 iterations required. (Convergence=.007). Extraction was terminated.

Structure Matrix

	Factor	
	1	2
TOINT1	.870	.485
TOINT2	.992	.452
TOINT3	.469	.209
TOINT4	.701	.626
TOINT5	.489	.925
TOINT6	.352	.776

Extraction Method: Maximum Likelihood.
 Rotation Method: Promax with Kaiser Normalization.

Factor Correlation Matrix

Factor	1	2
1	1.000	.527
2	.527	1.000

Extraction Method: Maximum Likelihood.
 Rotation Method: Promax with Kaiser Normalization.

Factor Analysis for Turnover and Transfer Intentions Scale

Communalities ^a

	Initial	Extraction
TOINT1	.753	.758
TOINT2	.789	.992
TOINT3	.248	.222
TOINT4	.569	.582
TOINT5	.607	.857
TOINT6	.534	.606

Extraction Method: Maximum Likelihood.

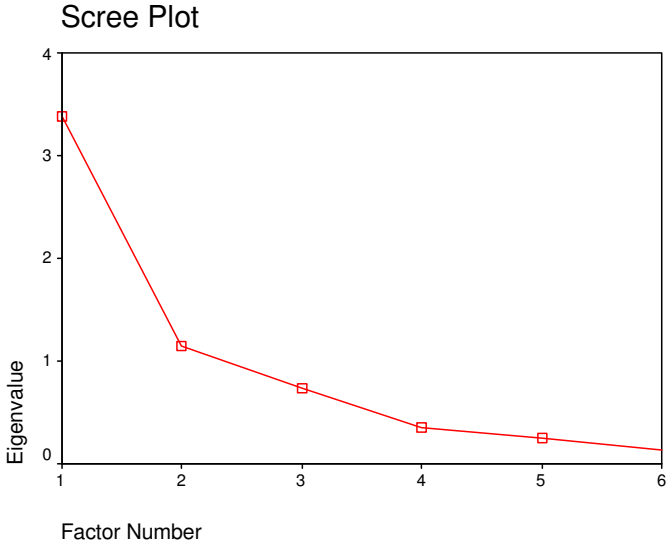
- a. One or more communitiy estimates greater than 1 were encountered during iterations. The resulting solution should be interpreted with caution.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.381	56.342	56.342	2.735	45.576	45.576	2.816
2	1.148	19.140	75.482	1.282	21.364	66.940	2.333
3	.742	12.373	87.854				
4	.346	5.775	93.629				
5	.254	4.230	97.859				
6	.128	2.141	100.000				

Extraction Method: Maximum Likelihood.

- a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.



Pattern Matrix ^a

	Factor	
	1	2
TOINT1	.851	.037
TOINT2	1.044	-.098
TOINT3	.496	-.052
TOINT4	.514	.355
TOINT5	.002	.924
TOINT6	-.079	.817

Extraction Method: Maximum Likelihood.
 Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Structure Matrix

	Factor	
	1	2
TOINT1	.870	.485
TOINT2	.992	.452
TOINT3	.469	.209
TOINT4	.701	.626
TOINT5	.489	.925
TOINT6	.352	.776

Extraction Method: Maximum Likelihood.
 Rotation Method: Promax with Kaiser Normalization.

Factor Correlation Matrix

Factor	1	2
1	1.000	.527
2	.527	1.000

Extraction Method: Maximum Likelihood.
 Rotation Method: Promax with Kaiser Normalization.

Factor Analysis for Self-Efficacy Scale

Communalities

	Initial	Extraction
SELFEF1	.543	.276
SELFEF2	.467	.244
SELFEF3	.593	.400
SELFEF4	.564	.256
SELFEF5	.442	.320
SELFEF6	.565	.388
SELFEF7	.520	.282
SELFEF8	.606	.419
SELFEF9	.615	.478
SELFEF10	.533	.357
SELFEF11	.592	.394
SELFEF12	.588	.406
SELFEF13	.694	.572
SELFEF14	.524	.393
SELFEF15	.651	.463
SELFEF16	.594	.540
SELFEF17	.619	.393
SELFEF18	.542	.322
SELFEF19	.545	.427
SELFEF20	.528	.335
SELFEF21	.618	.352
SELFEF22	.468	.209
SELFEF23	.716	.500
SELFEF24	.594	.422

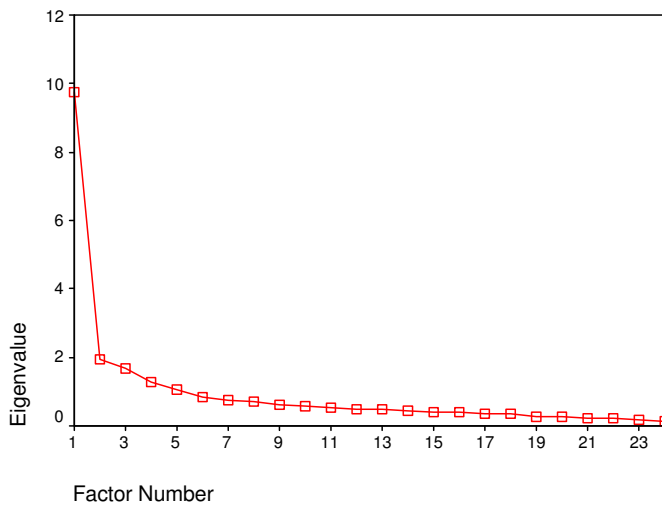
Extraction Method: Maximum Likelihood.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.747	40.612	40.612	9.146	38.110	38.110
2	1.936	8.067	48.679			
3	1.662	6.926	55.605			
4	1.273	5.302	60.907			
5	1.064	4.435	65.342			
6	.838	3.493	68.834			
7	.742	3.093	71.927			
8	.688	2.865	74.793			
9	.637	2.652	77.445			
10	.582	2.427	79.872			
11	.550	2.293	82.165			
12	.497	2.070	84.235			
13	.475	1.979	86.213			
14	.458	1.910	88.123			
15	.415	1.728	89.851			
16	.395	1.648	91.499			
17	.370	1.543	93.042			
18	.337	1.406	94.448			
19	.279	1.163	95.610			
20	.269	1.122	96.732			
21	.232	.967	97.699			
22	.222	.926	98.624			
23	.190	.791	99.415			
24	.140	.585	100.000			

Extraction Method: Maximum Likelihood.

Scree Plot



Factor Matrix^a

	Factor
	1
SELFEF1	.526
SELFEF2	.494
SELFEF3	.632
SELFEF4	.506
SELFEF5	.565
SELFEF6	.623
SELFEF7	.532
SELFEF8	.647
SELFEF9	.691
SELFEF10	.597
SELFEF11	.628
SELFEF12	.637
SELFEF13	.756
SELFEF14	.627
SELFEF15	.680
SELFEF16	.735
SELFEF17	.627
SELFEF18	.568
SELFEF19	.653
SELFEF20	.578
SELFEF21	.593
SELFEF22	.457
SELFEF23	.707
SELFEF24	.649

Extraction Method: Maximum Likelihood.

a. 1 factors extracted. 5 iterations required.

Goodness-of-fit Test

Chi-Square	df	Sig.
699.554	252	.000

Rotated Factor Matrix^a

a. Only one factor was extracted.
The solution cannot be rotated.