## Running Head: TEACHER STRESS

Stress, Coping, Job Satisfaction, and Experience in Teachers

## by

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#### Abstract

The purpose of this study was to explore the relationships between stress, coping, job satisfaction, and experience in teachers. The hypotheses mainly focused on the relationship between stress and other variables such as job satisfaction. Participants were 115 teachers from School District 8, in Saint John, New Brunswick. Teachers completed four questionnaires including a demographics questionnaire, Teacher Stress Inventory (Schutz \& Long, 1988), Brief COPE (Carver, 1997), and Teacher Satisfaction Scale (Ho \& $\mathrm{Au}, 2006$ ). The participants were divided into three groups based on number of years of experience. Findings indicated a significant relationship between stress and job satisfaction. Also, role stress and task stress contributed the most to the relationship between stress and job satisfaction. Teacher stress was found to be significantly related to socioeconomic status of the student body's. The grade level taught by the teacher and the community setting were not found to be related to teacher stress. No relationship was found between teacher stress, direct action, and palliative coping methods. Additionally, teaching experience was not significantly related to teacher stress, coping methods, or job satisfaction.


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## Introduction

The incidence of occupational stress has been well documented in many professions over the last 20 years (Howard \& Johnson, 2004). Stress is a common aspect in most professions; however, it has been consistently linked to the helping professions, including teaching. Teaching has traditionally been considered to be one of the most stressful occupations (Kyriacou, 2000). Teacher stress is an international occurrence which is well researched across a number of different countries (e.g., Howard \& Johnson, 2004; Chan, 2002; van Dick \& Wagner, 2001; Romano \& Wahlstrom, 2000; Arikewuyo, 2004; Younghusband, 2000; Dussault, Royer, \& Loiselle, 1997). Teachers face numerous stressors including student behaviour problems (Forlin, 1997), heavy workload (Nagel \& Brown, 2003), dealing with aggressive parents (Howard \& Johnson, 2004), maintaining discipline (Austin, Shah, \& Muncer, 2005), being evaluated by others (Kyriacou, 2001), attending after school and evening meetings (Romano \& Wahlstrom, 2000), lack of stimulation (Burke \& Greenglass, 1993), and high external expectations (Murray-Harvey et al., 2000).

The levels of stress experienced as well as outcomes of stress (e.g., burnout and psychological distress) may be dependent on the coping strategies that an individual employs. Coping strategies can either be effective or ineffective in reducing a source of teacher stress depending on the situation (Sheu et al., 2002). If a coping method is effective a teaching stressor should be reduced or eliminated, thus decreasing potential negative outcomes. On the other hand, an ineffective coping method may result in maintaining or increasing teacher stress, thus potentially increasing the negative
outcomes, such as burnout and psychological distress. The level of teaching experience may be an important variable to consider when examining the relation between teacher stress and coping methods (Sheu et al., 2002; Folkman \& Lazarus, 1980). Although this relation has received little empirical attention (Yagil, 1998; Korevarr \& Bergen, 1992), it could be predicted that one's level of teaching experience is related to how one reacts or copes with stress.

Teachers' job satisfaction may also be an important variable in relation to stress (Ho \& Au, 2006). Specifically, job satisfaction may predict the teacher's level of stress. It may not be coping alone that determines how teachers respond to stress, but a combination of variables. Each of these concepts will be examined in turn. The findings from past research will then be used to form the hypotheses concerning relationships between the major variables in this study.

## Teacher Stress

In his study, Kyriacou (2001) defined stress as "the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of [his/her] work as a teacher". Stress may be conceptualized as a negative emotional experience that is triggered by the teacher's perception of a threat to his/her self-esteem or well-being (Kyriacou, 2000). Kyriacou and Sutcliffe (1978) proposed a model of teacher stress which reflects the importance of a teacher's perception of a threat; if a situation is not perceived as threatening, then it is not identified as being a stressful situation.

The perception of a threat, according to Kyriacou and Sutcliffe's (1978) model, may be in response to a situation that most teachers would find threatening, such as if a student became physically abusive toward a teacher. Stress associated with differing situations can be more subjective and teachers may respond in different ways. For example, making a presentation in front of colleagues may be stressful for some teachers yet enjoyable for others. Any situation may be perceived as being threatening by some teachers, but not by others.

Although Kyriacou's (2001) definition of stress will be used in this study, other definitions and models of stress are numerous. Some researchers have used the term to refer to the level of pressure and demands made on a teacher (Mearns \& Cain, 2003; Murray-Harvey, R., Slee, P.T., Lawson, M.J., Silins, H., Banfield, G., \& Russell, A 2000). Others have described stress as the inconsistency between the demands made on a teacher and his/her ability to cope with those demands (Folkman \& Lazarus, 1980). Still another researcher described stress as a developmental process that begins in the student teaching phase and results in emotional exhaustion (Younghusband, 2000). One difficulty of these alternative definitions and models is that they have not been operationalized within the teaching profession.

Long-term exposure to stress can lead to burnout, a term coined by Maslach and Jackson (1986). Burnout is described as emotional exhaustion, depersonalization, and a reduced sense of accomplishment. Although burnout is not a focus of this study, it is important to note that it is a result of experiencing excessive stress over time (Romano \& Wahlstrom, 2000). Other less severe effects of stress can include emotional, psychological, and psychosomatic reactions, which include depression, headaches, loss of
appetite, and insomnia (Chan, 2002). According to research completed by Dean (2000), more that 40 percent of teachers have experienced serious symptoms of stress as a result of teaching-related pressures, such as demanding workloads and abusive students. This suggests that teachers are likely to suffer physically, psychologically, and emotionally as a result of job-related stress. Kyriacou (2001) suggested that understanding teacher stress offers the possibility for prevention and remedial interventions, as stress is a less advanced condition compared to burnout. Therefore, while burnout is an important piece of the puzzle when examining the effects of stress, this study focused primarily on stress and how teachers cope with stress.

Romano and Wahlstrom (2000) surveyed teachers in alternative education programs to determine their sources of stress and further examine the relationship between stress and well-being. Five major sources of stress emerged for teachers including student demands, physical demands of teaching, lack of funding, after school and evening meetings, and demands of inefficient school administration. Also, they examined the relationships between the stress level of teachers and sources of stress. They found that stress levels significantly correlated with the majority of the sources of stress indicated by the teachers. This suggests that several identifiable sources of stress greatly contribute to teachers' overall stress level. Additionally, Romano and Wahlstrom (2000) found negative correlations between the level of teachers' stress and their wellbeing. That is, the greater the stress the more negative the impact on the teacher's personal well-being. Their study highlighted the importance of examining not only levels of stress in the teaching profession, but also the relationship between stress and wellbeing.

Teachers experience many different sources of stress. Qualitative research completed by Howard and Johnson (2004) revealed that Australian teachers experience stress as a result of threats of physical abuse, verbal abuse, work refusal by students, dealing with consequences of abuse or neglect of students, and dealing with aggressive/abusive parents. Austin, Shah, and Muncer (2005) found that the main sources of stress for teachers from the UK are work-related stressors, such as time management, student discipline, and student motivation. Other sources of teacher stress that have been documented include teaching a child with a disability (Forlin, 1997), discipline and handling difficult students (Onafowora, 2004), adapting to change (Kyriacou, 2001), lack of time (Kyriacou, 1987), inadequate resources (Chaplain, 1995), poor student behaviour (Friedman, 1995), multiple roles and responsibilities (Hockley \& Hemmings, 2001), and role conflict (Pearlin, 1989).

A pilot study by Younghusband (2000) assessed the level of stress among elementary, middle and high school teachers in a school district in Newfoundland. The greatest stressor was found to be role overload; 74 percent of teachers reported this as a stressor and endorsed that it occurred "most of the time". Overload referred to having too many tasks with insufficient time to complete them, increased job responsibilities, performing tasks without training, taking work home, not having sufficient resources, and doing more work than is reasonable.

In a qualitative study, Younghusband (2003) identified the major stressors for high school teachers in Newfoundland. Through the interviews with teachers, she identified several stressors such as recent systemic and curriculum changes, negative work culture, work overload, student behaviour problems, and lack of administrative
support. Teachers reported feeling disillusioned; the idealism they began their career with had faded. Despite the level of reported stress and disillusionment, all of the teachers who participated reported that they love teaching. Specifically, teachers indicated that they enjoy positive interactions with students, helping students learn, feeling they have some impact on students' lives, teaching sports, getting involved in extracurricular activities, and encouraging students.

Chaplain (1995) studied stress and job satisfaction in elementary school teachers in England. He found that approximately 23 percent of the sample identified their work as 'very' or 'extremely' stressful. Stress levels varied based on the teacher's sex, age and amount of experience. For example, female teachers scored higher than male teachers in terms of occupational stress. Females and males not only experienced different levels of stress, but also reported different sources of stress. Female teachers reported experiencing more stress as a result of professional concerns including supporting developmentally delayed and learning-disabled children, helping children with problems, and accomplishing personal goals. Male teachers reported professional tasks as being one of their main stressors; these tasks included completing specialized activities, obtaining professional support, changing school conditions to improve on student learning, and feeling confident as teachers. Males also experience more stress regarding student behaviour problems, namely, controlling students' behaviours and attitudes.

Chaplain (1995) also explored stress in relation to teachers' levels of experience. There were no differences between teachers differing on levels of experience with regards to stress arising from pupil behaviour problems. Nonetheless, there was a tendency for less experienced teachers to be more stressed by professional concerns than
experienced teachers. Overall, the two groups that were most likely to experience the highest stress levels were the youngest teachers and the oldest teachers. Job satisfaction was also examined in this study. In general, 37 percent of respondents were satisfied with their jobs, while 47 percent had mixed feelings. While the youngest and oldest teachers experienced the most stress, they also reported the highest levels of job satisfaction. Also, females reported being more satisfied with teaching than males even though they tended to experience more stress.

Although Chaplain (1995) and Romano and Wahlstrom (2000) found different sources of stress amongst teachers in their studies, both studies found that female teachers experienced more stress than male teachers. Stressors in Chaplain's (1995) study related to dealing with students (e.g., supporting developmentally delayed students, and helping kids). However, Romano and Wahlstrom (2000) found that teachers reported stressors related to teaching (e.g., physical demands of teaching and support from administration). The differences in sources of stress may be a result of the different teacher populations that were surveyed. For example, Romano and Wahlstrom (2000) had participants who taught at alternative education programs while Chaplain (1995) had participants from elementary schools in England. Much research has been done on teachers and sources of stress over the last 20 years (Howard \& Johnson, 2004). Due to the large volume of research in this area, this study will focus on the interactions between stress, experience, coping and job satisfaction rather than focus specifically on sources of teachers' stress.

## Coping

One approach to studying coping strategies has been to categorize these into two main classes: direct action techniques and palliative techniques (Kyriacou, 2000). Direct action strategies refer to actions that a teacher can do to eliminate a source of stress. When using this strategy a teacher first identifies the source of stress and then performs an action that will successfully eliminate the stressor. An effective direct action technique should eradicate the source of stress. Kyriacou identifies five main categories of direct action coping; direct attack, enhance skills and ability to act, adapt to the situation, remove the source of stress, and seek help from colleagues. Some of these techniques involve utilizing skills that a teacher has available to him/her, while others involve learning new skills. Kyriacou (2000) noted that it is important to match the action to the stressor and suggested that determining which action fits better with a problem may be an easier task for an experienced teacher who has built a repertoire of skills.

On the other hand, palliative strategies do not deal with the source of stress, but are aimed at lessening the negative feelings associated with stress (Kyriacou, 2000). Palliative strategies can be physical or mental. Mental techniques are any strategy that allows a teacher to alter his/her appraisal of a situation. If a teacher can view a situation as less threatening then that will help to alleviate the experience of stress. The four main mental strategies are putting things into perspective, seeing the humor in situations, thinking positively, and maintaining emotional control. Physical palliative techniques are also strategies that a teacher can use to reduce the negative feelings generated by stress.

Physical techniques include using relaxation methods, exercise, and meditation. Although Kyriacou (2000) indicated that direct action coping is potentially the most effective coping method to completely eliminate stress, he also acknowledged that palliative coping is important. There are situations in which palliative strategies are the only coping option, as direct action coping may result in maladaptive consequences. For example, challenging or confronting an aggressive boss with whom a teacher has problems may result in further relationship problems or being fired. Therefore, an individual may be better off to utilize a palliative technique to reduce stress in situations where direct action techniques cannot be used or would result in maladaptive consequences.

The research on coping methods presents palliative coping in a negative framework (Kyriacou, 2000). That is, palliative coping does not deal directly with the problem; however it is a way of eliminating some of the feelings associated with stress. Cognitive-behavioural therapy uses client strategies that are focused on changing cognitions and resulting feelings, such as, positive reframing and meditation. These types of strategies can be effective in dealing with stress and mental health problems (e.g., Barrowclough, C., King, P., Colville, J., Russell, E., Burns, A., \& Tarrier, N., 2001). Thus, it is important to note that what are referred to as palliative coping methods in this literature may be as successful as direct action coping methods.

Folkman and Lazarus (1980) defined an alternative approach to examining coping as the "cognitive and behavioural efforts made to master, tolerate, or reduce external and internal demands and conflicts among them" (p.223). According to Folkman and Lazarus, coping is a dynamic process which changes as the individual evaluates the
situation and responds accordingly. The process of coping is a mediator between stress and its outcome. The outcome may be dependent upon which type of coping is employed. Folkman and Lazarus stated that the functions of coping are to regulate distress caused by the stressful situation (emotion-focused coping) and to manage the problem (problem-focused coping). Problem and emotion-focused coping may be thought of as synonyms for direct action and palliative coping, respectively (FortesFerreira, Peiró, González-Morales \& Martín, 2006). For the purposes of this study Kyriacou's (2000) terms and concepts of teacher coping were used.

Fortes-Ferreira, Peiró, González,-Morales, and Martín, I.(2006) analyzed direct action coping and palliative coping in relation to work stress and psychological wellbeing among bank employees. They found that direct action coping positively correlated with well-being and job satisfaction while it negatively correlated with psychological distress and psychosomatic complaints. Palliative coping predicted higher levels of psychological distress, but it did not correlate significantly with the other variables. Individuals who used high direct action coping and low palliative coping reported the lowest levels of psychological distress. Those individuals who used low direct action coping showed higher psychological distress in spite of the amount of palliative coping. Thus at least with bank employees, direct action coping appeared to be an effective means of reducing psychological distress resulting from work-related stress, while palliative coping did not.

Austin, Shah and Muncer (2005) examined teacher stress and the coping strategies used to reduce stress among high school teachers. They found that the main sources of stress were work-related stress (e.g., related to administration, preparation,
parental involvement, and hours worked outside of school), time management, discipline, and student motivation. Additionally, significant relationships were found between ways of coping and stress. Coping methods such as, escape avoidance, accepting responsibility, and uncontrolled aggression were used by teachers as negative coping strategies or ineffective ways of reducing stress. These types of coping strategies increased with greater stress levels. Only exercise was indicated by teachers as an effective way of coping. Teachers with lower levels of stress use more coping methods such as exercise, than those with higher levels of stress.

Theorell, Westerlund, Alferdsson, and Oxenstierna (2005) examined the relationship between covert coping, cardiovascular risk and long-term sick leave among men and women in the health care profession working in Stockholm. Covert coping referred to when an individual does not display his/her feelings to the 'aggressor' when he/she has been poorly treated. That is, the individual conceals his/her feelings in order to cope with the situation. Theorell et al. outlined four strategies that represent a covert coping pattern including, "let the situation pass without doing anything; walk away; feel badly afterwards; and behaving in a hostile way at home" (p. 1029). They found that covert coping is related to one's work environment, cardiovascular risk, and high blood pressure. In particular, covert coping is seen in situations where individuals have little autonomy at work. Generally, covert coping occurred more frequently in women and was more likely to happen in relation to dealing with their superiors. Men who used covert coping and were between the ages of 45 and 54 tended to have higher blood pressure than those who did not. A gender difference existed between men and women and the length of sick leave taken. Women who utilized covert coping as a strategy were
more likely to take a short sick leave, while men who used covert coping were more likely to require a long term sick leave.

In summary, three research studies have explored the relationships between coping methods and stress amongst bank employees (Fortes-Ferreira et al., 2006), high school teachers (Austin, Shah, and Muncer, 2005), and health care professionals (Theorell, Westerlund, Alferdsson, and Oxenstierna, 2005). The findings have not been consistent across studies. While Fortes-Ferreira et al. (2006) found that direct action coping correlated positively with well-being and job satisfaction among bank employees, palliative coping predicted higher levels of psychological distress. Direct action coping may be an effective method for reducing psychological distress related to work. Austin, Shah, and Muncer (2005) found that teachers with lower levels of stress used more direct action coping methods while those with higher levels of stress used more palliative coping methods. Additionally, Theorell, Westerlund, Alferdsson, and Oxenstierna (2005) examined the relationship between covert coping, cardiovascular risk, and long-term stress leave. They found that women were more likely to use covert coping in a relationship with their supervisors. The current study will examine the relationship between direct action coping, palliative coping, and teacher stress.

## Teaching Experience

Research findings on the amount of teaching experience in relation to stress and coping are inconsistent. One factor in this may be that different studies quantify experience in different ways. One set of studies define experienced teachers as those with five or more years of teaching (Arikewuyo, 2004; Groeschl \& Wetenkamp, 2001;

Korevaar \& Bergen, 1992). Despite the consistency in how they defined experienced teachers, these same researchers differ in how they describe inexperienced teachers. One study defined inexperienced teachers as having no teaching experience whatsoever (Groeschl \& Wetenkamp, 2001), while another does not state how inexperience was defined (Arikewuyo, 2004) leaving the impression that it is defined as less than 5 years of teaching. An alternate definition described inexperience as zero to three years of teaching (Korevarr \& Bergen, 1992; Yagil, 1998).

Yagil (1998) examined teachers' level of experience in relation to amount of experienced stress and sources of stress. This study found that inexperienced teachers undergo higher levels of stress than their experienced counterparts. Yagil proposed that, in part, this stress may result from role ambiguity and uncertainty with having less experience in the job. The major sources of stress for inexperienced teachers included interactions with students' parents and the overwhelming workload. Yagil proposed that inexperienced teachers may feel stress in interacting with parents due to possibility of receiving blame for a student's performance. As well, they lack the practice in dealing with parents on a daily basis. The resulting anxiety coupled with their lack of self-esteem can cause stress to increase. Secondly, inexperienced teachers may be less familiar with the curriculum and thus, not as comfortable, prepared, or organized with their curriculum-related tasks.

Groeschl and Wetenkamp (2001) examined whether differences existed between how experienced and inexperienced teachers rate classroom behavioural problems (e.g., whispering, spreading rumors and shoving). Teachers rated four scenarios containing male and female students on acceptability, typicality, and disruptiveness of the
behaviours. While the gender of the student did not influence the rating, the length of teaching experience and the grade level taught by teachers did have a significant effect. Inexperienced teachers overestimated the occurrence of these problematic behaviours. Experienced teachers rated behaviours as more acceptable than their inexperienced counterparts. Grocechi and Wetenkamp (2001) suggested that this occurs because experienced teachers are likely to have dealt with a broader range of behaviours and thus, their views on acceptability and typicality are different than those teachers with less experience. This study demonstrates that the same student behaviour may appear more problematic, and thus be more stressful for inexperienced teachers.

Korevarr and Bergen (1992) found that the level of teaching experience did not relate to how teachers reacted to difficult or stressful classroom situations. Teachers watched videotaped situations which referred to real-life difficulties (instructional and behavioural) and then responded to questionnaires that outlined what the teacher would have done. Inexperienced and experienced teachers showed no significant differences in their reactions. Nonetheless, some differences did exist in the complexity of reactions and reaction time. Experienced teachers' reactions were marked by more complexity than inexperienced teachers. Complexity in reactions are characterized as more explanations or 'if-then' statements and solutions. Also, experienced teachers make more reaction-intentions, meaning more goal-oriented responses to problematic classroom behaviours.

Lease (1999) found that there was no difference between vocational stress, gender and length of teaching in a university faculty. It had been hypothesized that new female faculty would experience role overload, role insufficiency, and role ambiguity. While
this hypothesis was not supported, Lease did determine that different factors are predictive of vocational, psychological, interpersonal and physical strain. For example, role overload and avoidant coping were found to be significant predictors of vocational stress. Not all predictors contribute to each area of stress; however role overload is a factor in predicting psychological, interpersonal and physical stress. This study is important in that other studies have found differences between the work-related stress and the length of teaching experience (Yagil, 1998).

The findings from research on the importance of experience in predicting stress and coping is inconsistent. Some studies have found that experience plays a significant role in how one deals with stressors and rating problematic classroom behaviours (Groeschl \& Wetenkamp, 2001), while other studies have failed to find a relationship between experience and reactions to stressful classroom behaviours or role overload (Korevarr \& Bergen, 1992). Some of the inconsistencies may be accounted for in part by the different variables examined in each study. For example, Yagil (1998) examined teachers' experience in relation to stress, emotional involvement and operative responses. Korevarr and Bergen (1992) studied the relationships between level of experience and teachers' reactions to difficult situations, quickness of response, and perception of student behaviour. As well, purposes and methodology differed across studies. Each of the studies had distinctly different purposes for completing the research, which impacts the outcomes of the study. For example, Groeschl and Wetenkamp (2001) examined the level of experience in relation to how teachers react to difficult situations while Yagil (1998) examined how the level of experience relates to dealing with occupational stress. Previous research is therefore inconsistent with respect to the relationship between
teacher's experience, coping, stress and job satisfaction. The current study explored these relationships further.

## Job Satisfaction

Job satisfaction, as defined by Locke (1969 as cited in Ho \& Au, 2006), refers to the "pleasant emotional condition resulting from the evaluation of one's job as achieving or facilitating one's job standards" (p.172). Teacher satisfaction is a result of the evaluation of the relationship between what one wants from teaching and what one perceives teaching to offer or entail. Ho and Au (2006) indicated that satisfaction may have little to do with the environment in which the individual is employed, but rather is related to the individual's career-driven desires, goals and perceptions. Nonetheless, other researchers believe that satisfaction is related to a combination of internal and external factors (Chaplain, 1995; Schnieder, 2003).

Ho and $\mathrm{Au}(2006)$ examined the relationship between teacher satisfaction, stress, psychological distress, and self-esteem in primary and secondary teachers. They found that overall their participants were quite satisfied with their teaching jobs. Nonetheless, there were those who were not satisfied with teaching. Teachers with lower satisfaction were more likely to suffer from somatic symptoms, anxiety and depression. Also, they experienced more stress, classroom behavioural problems, and reportedly inadequate resources. Teachers who reported being more satisfied were better at classroom management and reported less stress. Teacher satisfaction was not associated with external demands or relationships with colleagues or friends. Finally, they found that teacher satisfaction was negatively correlated with work stress. They suggested that
lower satisfaction in the teaching profession may result in increased work-related stress. Satisfaction may play a crucial role in regulating job-related stress and its outcomes.

There are a number of factors that can influence teacher satisfaction. According to Chaplain (1995), personal performance was considered to be the most satisfying facet of teaching. Other factors found to contribute to overall satisfaction include: adequate resources; teaching facilities; organization of the school; school management; and teaching curriculum (Chaplain, 1995). Lipman (1999) reported that teachers find helping students and working with colleagues to be the most satisfying aspect of their job. Dissatisfaction can result from external aspects of the job, such as government actions, media coverage and society's view of teachers (Lipman, 1999). Schnieder (2003) indicated that teachers' satisfaction is related specifically to school and teaching facilities, such as classroom size, inadequate recreation/art/music facilities, and poor air quality.

Job satisfaction was identified by Ho and Au (2006) as resulting from one's internal goals, desires and perceptions. Chaplain (1995) viewed one's personal performance as a measure of job satisfaction. Lipman (1999) indicated that job satisfaction results from assisting students and working with colleagues. However, Schnieder (2003) suggested that job satisfaction is dependent on objects and situations outside of one's self, such as teaching facilities. Research by Ho and Au (2006) has found a relationship between teacher stress and job satisfaction. Specifically, they suggested that teachers with higher levels of stress exhibited lower levels of job satisfaction. This study explored the relationship between stress and job satisfaction in a sample of teachers from a Saint John, New Brunswick School District.

Stress, Coping, Experience and Job Satisfaction
I have proposed a model of the relations between stress, coping, level of experience, and job satisfaction (See Figure 1). The figure was developed by examining previous research in this area with some relationships demonstrating more consistency, and by predicting the relations between variables that have not previously been studied and those that have been found to be inconsistent.

Figure 1.


Figure 1. Model of Stress, Coping Method, Level of Experience and Job Satisfaction: Predicts interactions between the major variables in this study. The explanation of the paths 1-6 follow. *Paths examined in this study.

Figure 1, Path 1-2: A relationship between stress and coping methods has been hypothesized based on previous research in this area (Sheu et al., 2002; Folkman \& Lazarus, 1980). Kyriacou (2000) found that a stressor guides what type of coping method will be used in various situations. The most effective coping methods vary by the
situation and stressor. The coping method chosen by a teacher can result in a reduction in his/ her overall stress level, an increase in his/her overall stress level, or no change in his/her amount of stress. The outcome depends on the effectiveness of the coping method that is used. That is, whether a coping method is effective or ineffective is based on whether the stress level being increased or decreased.

Figure 1, Path 3-4-5: Relationships have been predicted between the level of teaching experience and stressors, coping methods and levels of stress. Research has examined experience in relation to these variables (Path 3). Yagil (1998) found that experienced and inexperienced teachers face different stressors. Additionally, Yagil (1998) found that inexperienced teachers were more likely to have higher levels of stress whereas experienced teachers were likely to have lower levels of stress (Path 5). As stress is related to coping strategies, it is predicted that coping will vary by experience (Path 4). I predict that inexperienced teachers use less effective coping methods to eliminate stressors, as their stress levels have been found to be high. Experienced teachers are predicted to use more effective coping methods. One possibility is that experienced teachers have lower stress because they have developed better coping methods.

Figure 1, Path 6: A relationship between job satisfaction and stress has been predicated. Previous research in this area has found a negative relationship between job satisfaction and work-related stress (Ho \& Au, 2006). Specifically, Ho and Au (2006) suggested that teachers with higher levels of stress exhibited lower levels of job satisfaction.

Figure 1, Path 4-2-6; Path 5-6: The relationship between the level of teaching experience and job satisfaction has not been explored in research. Nonetheless, the relation between job satisfaction and stress has been studied (Ho \& Au, 2006). Teachers with higher levels of stress are likely to have lower job satisfaction. As well, inexperienced teachers tend to undergo higher levels of stress (Yagil, 1998). I therefore predict that inexperienced teachers will have lower job satisfaction, due to higher stress. That is, a positive relationship between job satisfaction and experience is predicted.

## Other Variables

A number of additional factors may be important in studying the relationships between the major variables in this study. It is not only important to be aware of these possible variables, but to also examine them. Due to this study examining all teachers in one District of New Brunswick, the results may be more vulnerable to extraneous variables than studies that examine a few schools with similar settings or characteristics. Some of the main variables that must be kept in mind include: each student body's socioeconomic status; the teachers' education level; the grade level that a teacher teaches; and whether the school is in a rural or urban setting. The demographics questionnaire was designed to measure the confounding variables so that they could be examined in relation to the main variables in this study.

## Research Questions:

1. Is a measure of teachers' overall stress related to teachers' levels of reported job satisfaction? What types of stressors account for the most variation in job satisfaction?
2. Is the amount of stress that teachers report related to important demographic variables, such as socioeconomic status of the students, the grade the participant is teaching and the type of community the participant works in?
3. Do teachers who report using more direct action coping have decreased stress? Conversely, do teachers who report using more palliative coping have increased stress? 4. Do experienced and inexperienced teachers face different stressors, have different levels of job satisfaction or use different types of coping strategies?

Method

## School District

School District 8 is situated in Saint John, New Brunswick in Atlantic Canada. The population of Saint John is approximately 70,000 people with most of the population falling within a low to medium socioeconomic status. Saint John is predominantly an urban area with some suburban areas in the East, West, and North areas of the city. School District 8 has 35 schools, 13,000 students and 869 teachers. Of interest to the researcher are the advancements in School District 8 particularly in the area of school psychology and delivery of services (e.g., effective early intervention programs and a consultation model). One approach is to have the best instructional programs in place from Kindergarten on so that fewer children fail in the early grades. Also, there are early intervention programs that are aimed at indentifying signs of difficulties in reading and other academic weaknesses. Such preventive and early intervention approaches may be
more supportive towards teachers, as these can help more children be successful and thus lead teachers to be more efficacious in their profession.

## Participants

One hundred and fifteen teachers from District 8 in Saint John, New Brunswick participated in this study. Of those participants, 94 were females and 22 were males. The ages of the participants ranged from $23-58$ years with a mean age of $39.87(S D=$ 10.24). The mean number of years of teaching experience was $13.57(S D=9.52)$. The participants' number of years of teaching experience ranged from zero to 35 years. Fiftyfour percent of the participants were teaching in elementary schools; $24 \%$ in middle schools; and $15 \%$ in high schools. Teachers were asked to indicate how many years they had left until retirement. The mean number of years until retirements was $16.40(S D=$ 10.02). Participants indicated whether they were generally satisfied with their profession. Over $90 \%$ of teachers indicated that they were satisfied, with only $6 \%$ indicated that they were not satisfied. (see Table 1)

Teachers were divided into three categories of experience, as this division seemed to best represent variability in the obtained sample. The three categories were: less than six years of experience, between six and 16 years of experience, and more than 16 years of experience. The categories were divided as follows: category one $(n=33$, Mage $=$ 29.47, $\left.M_{\text {years }}=3.06\right)$; category two $\left(n=40, M_{\text {age }}=38.53, M_{\text {years }}=10.65\right)$; and category three $\left(n=42, M_{\text {age }}=49.48, M_{\text {years }}=24.10\right.$, see Table 2$)$.

## Questionnaires

Demographics Questionnaire. The Demographics Questionnaire was adapted from a study by Arikewuyo (2004). It requests information regarding the participant's age, sex, and school (see Appendix B). As well, this survey gathers information on the participants' level of experience, teaching qualifications, community setting, students' socioeconomic status, number of years until retirement, and the grade they are teaching. It does not request that a teacher provide any identifying information.

Teacher Stress Inventory (TSI). The Teacher Stress Inventory (revised by Schutz \& Long, 1988) identified what types of situations teachers reported as being stressful (see Appendix C). and an overall stress score. The shortened version has 36 items that are rated on a 5-point Likert scale. These items are grouped into seven categories which include: role ambiguity (e.g., "I am unclear on what the scope and responsibilities of my job are"); role stress (e.g., "I find that I have extra work beyond what should be normally expected of me"); organizational management (e.g., "My administrative head does not ask my opinion on decisions that directly affect me"); job satisfaction (e.g., "All in all, I would say that am I am not satisfied with my job"); life satisfaction (e.g., "My life is currently quite lonely"); task stress (e.g., "I find that dealing with student discipline problems puts a lot of stress on me"); and supervisory support (e.g., "My administrative head does not pay attention to what I say"). A high score indicates a higher degree of stress experienced by the participant. A high score on one scale indicates that the participant has a high amount of stress in that area. The maximum score is 180 . Schutz
and Long reported that Cronbach's alpha was high in their sample, with only 3 of 36 items with item-total correlations under . 50 .

Brief COPE. The Brief COPE (Carver, 1997), a revised version of the COPE (Carver, Scheier \& Weintraub, 1989), examines the types of coping strategies individuals use when experiencing a stressful encounter (see Appendix D). There are 14 scales that measure the types of coping which include: active coping; planning; positive reframing; acceptance; humor; religion; emotional support; instrumental support; self-distraction; denial; venting; substance use; behavioural disengagement; and self-blame. According to Carver et al. (1989), eleven of these coping methods fit within direct action and palliative coping methods. Direct action coping methods include active coping, planning, seeking emotional support, and instrumental support. Palliative coping methods include positive reframing, acceptance, humor, religion, self-distraction, denial and substance abuse. Three of the coping methods that are considered ineffective include venting, behavioural disengagement and self-blame. For the purpose of this study, direct action and palliative coping methods were measured. The teachers rated the 22 items on a 4-point scale that ranges from 0 (not used at all) to 3 (used a lot). Therefore, the scores on this scale range from 0 to 88 .

Teacher Satisfaction Scale (TSS). The Teacher Satisfaction Scale (Ho \& Au, 2006) measures teachers' overall satisfaction with their profession (see Appendix E). From this questionnaire a score that measures job satisfaction will be obtained. The scale consisted of five items that are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to

5 (strongly agree). A high score is indicative of a high degree of teacher satisfaction. A participant can have a maximum score of 25 . Ho and Au reported that Cronbach's alpha was 0.77 and the two-week test-retest reliability was .76 for their sample.

## Procedure

Teachers were given questionnaires to complete that included measures of teacher stress (Schutz \& Long, 1988), direct action and palliative coping (Carver, 1997), and satisfaction (Ho \& Au, 2006). Teachers also completed a Demographics questionnaire which measured a number of variables including level of experience, age, gender, and number of years until retirement.

Permission to conduct this study was obtained from the Superintendent of District 8 prior to beginning the study. Principals at the 38 schools in the District were contacted via email to request permission to leave questionnaires at their schools for teachers to complete. There were 18 schools that agreed to participate in this study. Teachers were given approximately four weeks to complete the questionnaires. Three hundred and thirty-eight questionnaires were distributed and 117 questionnaires were returned and completed. This represents a 34.6 percent response rate. Two questionnaires were excluded from the data analysis. One participant failed to complete the Demographics Questionnaire. Another participant was excluded on the basis that more than 5 percent of his data was missing from the Teacher Stress Inventory (following the procedure used by Tabachnick and Fidell, 2001).

Due to the number of participants, 6 out of 115 , who indicated that they were not sure how to answer Question 10 (I have to buck a rule or policy in order to carry it out), it
was dropped from the Teacher Stress Inventory. Two participants were excluded from the Brief Cope analysis as the entire scale was not completed. As well, five participants were excluded from the Teacher Satisfaction Scale analysis as the scale was not completed. A number of participants from the three experience groups left questions blank on the Brief Cope. The missing data was replaced with the group mean for that item. This was the case for 5 out of 115 data points. Participants also left questions blank on the Teacher Stress Inventory. This missing data was replaced with the group mean for each item. This was the case for 16 out of 115 data points.

## Results

Table 1 reports the participants' mean ages, mean years of teaching experience and number of years until retirement. These same descriptors are discussed in the previous section on participant characteristics. Table 2 displays the participants' mean ages, mean years of teaching experience, and number of years until retirement for each of the three experience groups. The groups are divided by years of experience (e.g., group 1 has less than 6 years of experience; group 2 has between 6 and 16 years of experience; and group 3 has more than 16 years of experience).

Table 1
Descriptive statistics for Participants

|  | N | Mean | $S D$ | Range |
| :--- | :---: | :--- | :--- | :--- |
| Age | 110 | 39.87 | 10.25 | $23-58$ |
| Years of Teaching Experience | 113 | 13.57 | 9.53 | $0-35$ |
| Years to Retirement | 86 | 16.40 | 10.02 | $1-35$ |

Note. $\mathrm{N}=115$

Table 2
Descriptive statistics for Age, Years of Teaching Experience and Years to Retirement across Experience Groups

| Variables | Experience Groups | N | Mean | $S D$ |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Age | 1.00 | 32 | 29.47 | 5.41 |
|  | 2.00 | 38 | 38.53 | 7.53 |
|  | 3.00 | 40 | 49.48 | 5.58 |
| Years of Teaching |  |  |  |  |
| Experience | 1.00 | 31 | 3.06 | 1.57 |
|  | 2.00 | 40 | 10.65 | 3.38 |
| Years to Retirement | 3.00 | 42 | 24.10 | 5.49 |
|  | 1.00 |  |  |  |
|  | 2.00 | 21 | 28.95 | 3.93 |
|  | 3.00 | 37 | 17.82 | 7.21 |
|  |  |  | 8.19 | 5.16 |

Note: Group $1.00=$ less than 6 years of experience
Group $2.00=$ between 6 and 16 years of experience
Group $3.00=$ more than 16 years of experience

Question 1: Is a measure of teachers' overall stress related to teachers' levels of reported job satisfaction? What types of stressors account for the most variation in job satisfaction?

To test whether a relationship exists between total stress and job satisfaction correlations were examined. A significant negative correlation was found between total stress and job satisfaction (r=-.651, see Table 3). As hypothesized, teachers with higher levels of total stress reported lower ratings of job satisfaction. Indeed, job satisfaction significantly correlated with each different type of stressor (Role Ambiguity, Role Stress, Organizational Management, Job Satisfaction, Life Satisfaction, Task Stress and Supervisory Support). That is, teachers who reported higher levels of job satisfaction rated themselves lower on each stress index (see Table 4).

A step-wise regression was used to examine which aspects of teacher stress best predicted teacher satisfaction, as measured on the Teacher Stress Inventory. The first variable to enter the equation was Role Stress, which accounted for 27.4 percent of the variance in teacher satisfaction. The measure of Life Satisfaction was the one additional variable that made a significant contribution to teacher satisfaction; Life Satisfaction accounted for an additional 7.2 percent of the variance in teacher satisfaction beyond Role Stress. Together these two sources of stress accounted for 34.6 of the variance in teacher satisfaction (see equation 1, Table 5).

Since Life Stress may be impacted upon by many additional factors beyond teachers' working experience, the regression analysis was redone without Life Stress as a factor. The new model showed that Task Stress accounted for an additional, statistically significant, 3.1 percent of the variance in teacher satisfaction beyond Role Stress.

Together these two variables accounted for 30.5 percent of the total variance in the teacher satisfaction scale (see equation 2, Table 5).

## Table 3

Correlation Coefficients among Major Variables in this Study

| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Total Stress | 1.00 | -.076 | .034 | $-.651^{* *}$ | .101 | .066 |
| 2. Direct Action Coping |  | 1.00 | $.545^{* *}$ | .045 | -.003 | -.084 |
| 3. Palliative Coping |  |  | 1.00 | -.034 | .087 | .042 |
| 4. Satisfaction |  |  |  | 1.00 | -.030 | -.034 |
| 5. Years of Teaching |  |  |  |  | 1.00 | -.053 |
| 6. Grade Level Taught |  |  |  |  |  | 1.00 |

[^0]Table 4
Correlation Coefficients Among Types of Stress and Job Satisfaction

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Job Satisfaction | 1.00 | $-.217^{*}$ | $-.536^{* *}$ | $-.356^{* *}$ | $-.782^{* *}$ | $-.474^{* *}$ | $-.469^{* *}$ | $-.276^{* *}$ |
| 2. Role Ambiguity |  | 1.00 | $.587^{* *}$ | $.328^{* *}$ | $.389^{* *}$ | $.238^{*}$ | $.258^{* *}$ | $.199^{*}$ |
| 3. Role Stress |  |  | 1.00 | $.443^{* *}$ | $.605^{* *}$ | $.408^{* *}$ | $.538^{* *}$ | $.338^{* *}$ |
| 4. Organizational Management |  |  | 1.00 | $.482^{* *}$ | $.386^{* *}$ | $.240^{* *}$ | $.717^{* *}$ |  |
| 5. Job Satisfaction |  |  |  |  | 1.00 | $.434^{* *}$ | $.392^{* *}$ | $.390^{* *}$ |
| 6. Life Satisfaction |  |  |  |  |  | 1.00 | $.478^{* *}$ | $.201^{*}$ |
| 7. Task Stress |  |  |  |  |  | 1.00 | .138 |  |
| 8. Supervisory Support |  |  |  |  |  |  |  |  |

Note. ${ }^{*} \mathrm{p}<.05,{ }^{* *} \mathrm{p}<.01$

Table 5
Multiple Regression Statistics for Predicting Total Job Satisfaction

|  | Unstandarized <br> Coefficient | SE | $\mathrm{R}^{2}$ | $\mathrm{R}^{2}$ <br> Change | $\mathrm{F}(d f)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Equation 1 <br> Step 1 <br> TSRS |  |  |  |  |  |
| Step 2 <br> TSLS | .530 | .679 | .274 | - | $40.94(1,105)$ |
|  |  | .599 | .644 | .346 | .072 | $229.05(2,104)$

Note. TSRS $=$ Role Stress stressor; TSLS $=$ Life Stress stressor; TSTS $=$ Task stressor

Question 2: Is the amount of stress that teachers report related to important demographic variables, such as socioeconomic status of the student body, the grade the participant is teaching, and the type of community the participant works in?

To examine whether the major variables of total stress, teacher satisfaction, direct action and palliative coping strategies were related to the demographic variables collected for this study, a series of multivariate analyses of variance (MANOVA) were performed.

A MANOVA could not be used to examine gender differences due to the limited number
of male participants. The first demographic variable examined was student body's SES. Two groups were defined such that those indicating Low and Combined SES were in the lower SES category ( $\mathrm{N}=33$ ), and those indicating, Medium and High SES were in the higher SES category ( $\mathrm{N}=68$ ). A one-way MANOVA was conducted to evaluate the effect of SES on the four dependent variables; teacher stress, direct action coping, palliative coping, and job satisfaction. Results indicated an overall significant effect of SES, Wilks's $\Lambda=.893 \mathrm{~F}(4,96)=2.885, \mathrm{p}<.05$. ANOVAs on each dependent variable were conducted as follow-up tests. The ANOVAs for total satisfaction and palliative coping strategies were not significant. The ANOVA for direct action coping showed a significant main effect of SES, and the ANOVA for total stress approached significance ( $\mathrm{p}<.08$; see Table 6). For total stress, those teaching in lower SES schools tended to rated themselves higher than those teaching in schools with higher SES student body's ( $\mathrm{M}=$ $2.45, \mathrm{SE}=.091$ and $\mathrm{M}=2.23, \mathrm{SE}=.058$ for lower and higher SES schools respectively). Results further indicated that teachers in higher SES schools used more direct action coping strategies than teachers in lower SES schools $(M=2.24, S E=.058$ and $M=2.02$, $\mathrm{SE}=.101$ for higher and lower SES schools respectively).

A second MANOVA was performed with Grade level (elementary, middle and high school) as the independent variable and total stress, total satisfaction, direct action coping, and palliative coping as the dependent variables. The MANOVA yielded nonsignificant effects; these four variables did not differ systematically with grade level.

A third MANOVA was performed with community setting (rural, urban, and suburban) as the independent variable and total stress, total satisfaction, direct action coping, and palliative coping as the dependent variables. The results yielded non-
significant main effects by community setting. The four variables examined did not differ over the community setting in which the teacher was practicing.

## Table 6

Multivariate analysis of variance - SES, grade level, \& community setting

| Independent <br> Variables | Dependent <br> Variables | $d f$ | $F$ | Significance |
| :--- | :--- | :--- | :--- | :---: |
| SES | Direct action coping | 4,101 | 4.88 | $.03^{*}$ |
|  | Palliative coping | 4,101 | .13 | .72 |
|  | Total satisfaction | 4,101 | .06 | .81 |
|  | Total stress | 4,101 | 3.16 | $.08^{\wedge}$ |
|  |  |  |  |  |
| Grade level | Direct action coping | 4,100 | .16 | .86 |
|  | Palliative coping | 4,100 | .18 | .84 |
|  | Total satisfaction | 4,100 | .06 | .94 |
|  | Total stress | 4,100 | .04 | .86 |
|  |  |  |  |  |
| Community setting | Direct action coping | 4,98 | .11 | .90 |
|  | Palliative coping | 4,98 | .34 | .71 |
|  | Total satisfaction | 4,98 | .87 | .42 |
|  | Total stress | 4,98 | 1.56 | .22 |
|  |  |  |  |  |

Note. ${ }^{\wedge}$ approached traditional levels of statistical significance.

* $\mathrm{p}<.05$

Question 3: Do teachers who report using more direct action coping have decreased stress? Conversely, do teachers who report using more palliative coping have increased stress?

To test whether direct action and palliative coping was related to total stress, correlations were examined (see Table 3). The correlation between total stress and direct
action coping was not significant. Similarly, there was no significant relationship between total stress and palliative coping $(\mathrm{r}=.034, \rho>.05)$. Additionally, there were no significant relationships between direct action and palliative coping and stress levels for different types of stressors (i.e., Role Ambiguity, Role Stress, Organizational Management, Job Satisfaction, Life Satisfaction, Task Stress, and Supervisory Support). Thus, there was no evidence to support these hypotheses.

Question 4: Do experienced and inexperienced teachers face different stressors, have different levels of job satisfaction, or use different types of coping strategies?

First, to examine whether experienced and inexperienced teachers rated stressors differently a multivariate analysis of variance (MANOVA) was conducted with experience group as the between subject valuable and the seven Teacher Stress Inventory subscales as the dependent variables (Role Ambiguity, Role Stress, Organizational Management, Job Satisfaction, Life Satisfaction, Task Stress, and Supervisory Support). There were no significant differences between groups of teachers with different levels of experience on their ratings of these stressors (Wilks $\Lambda=.860, \mathrm{~F}(7,208)=1.36)$. The means and standard deviations for each stressor by experience level are presented in Table 7. No significant differences were found in the ratings of types of stressors that experience and inexperienced teachers reported.

To explore whether there were significant differences between the levels of teaching experience on job satisfaction a one-way analysis of variance (ANOVA) was conducted. The results indicated no significant difference between teachers' with different levels of experience on their job satisfaction $(\mathrm{F}(2,107)=0.498, \mathrm{p}>.05)$.

Teachers reported similar levels of job satisfaction across of the 3 defined levels of teaching experience.

In order to test whether experienced and inexperienced teachers use different types of coping strategies, a 3 Group (less than 6 years, 6 to 16 years, more than 16 years) x 2 Coping Type (direct action, palliative) ANOVA for a mixed design was conducted. There were no main effects of group or coping type on teachers' rated coping strategies. Teachers endorsed using palliative and direct action coping strategies the same amount across all levels of experience (see Table 8).

Table 7
Means of Stressors across Levels of Teaching Experience

| Variables | Experience Groups | Mean | $S D$ |
| :--- | :---: | :--- | :--- |
| Role Ambiguity | 1.00 | 2.06 | .620 |
|  | 2.00 | 2.02 | .622 |
| Role Stress | 3.00 | 2.22 | .569 |
|  |  |  |  |
|  | 1.00 | 2.73 | .814 |
| Organizational | 2.00 | 2.91 | .751 |
| Management | 3.00 | 3.04 | .909 |
|  | 1.00 |  |  |
|  | 2.00 | 2.19 | .612 |
| Job Satisfaction | 3.00 | 2.30 | .717 |
|  | 1.00 | 2.19 | .714 |
| Life Satisfaction | 2.00 | 2.09 | .886 |
|  | 3.00 | 2.29 | .803 |
|  | 1.00 | 1.92 | .900 |
|  | 2.00 | 1.83 | .836 |
| Task Stress | 3.00 | 1.73 | .602 |
|  | 1.00 | 2.99 | .669 |
| Supervisory Support | 2.00 | 3.11 | .815 |
|  | 3.00 | 3.06 | .758 |
|  | 1.00 |  | .539 |
|  | 2.00 | 1.57 | .631 |
|  | 3.00 | 2.01 | .910 |

Note. Group $1=$ less than 6 years of experience
Group 2 = between 6 and 16 years of experience
Group 3 = more than 16 years of experience

Table 8
Means of Coping Strategies

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Variables | Experience Groups | Mean | $S D$ |
|  |  |  |  |
| Direct Action Coping | 1.00 | 2.24 | 0.468 |
|  | 2.00 | 2.13 | 0.608 |
|  | 3.00 | 2.19 | 0.531 |
| Palliative Coping |  |  |  |
|  | 1.00 | 1.87 | 0.397 |
|  | 2.00 | 1.93 | 0.457 |
|  | 3.00 | 1.95 | 0.521 |
|  |  |  |  |

Note. Group $1=$ less than 6 years of teaching experience
Group 2 = between 6 and 16 years of teaching experience
Group $3=$ more than 16 years of teaching experience

Previous research has indicated that females and males may experience different stressors (Chaplain, 1995; Romano \& Wahlstrom, 2000). Although the male sample was too small to examine patterns within it, the female sample was adequate $(\mathrm{N}=92)$.

Therefore, I examined whether there was a relationship between levels of experience and ratings of all the different stressors from the Teacher Stress Inventory in the female-only sample. A series of one-way ANOVAs for each type of stressor revealed that teachers’ level of experience approached traditional levels of statistical significance for Life Stress and Supervisory Support $(\mathrm{F}(1,93)=3.01, \mathrm{p}=.05$; and $\mathrm{F}(1,93)=2.48, \mathrm{p}=.09$ for Life Stress and Supervisory Support, respectively). Female teachers with less experience rated that they felt less Supervisory Support and more Life Stress.

## Discussion

This study focused on the interactions between the main variables, teacher stress, coping methods, job satisfaction, and amount of teaching experience. Teacher stress has been one focus of research over the last 20 years (Howard \& Johnson, 2004) and teacher stress has been studied in a number of different countries (Chan, 2002; van Dick \& Wagner, 2001; Romano \& Walhstrom, 20000; Arikewuyo, 2004; Younghusband, 2000; Dussault, Royer \& Loiselle, 1997). Sources of teacher stress have emerge from workrelated issues including dealing with student behaviour problems (Forlin, 1997), heavy workload (Nagel \& Brown, 2003), dealing with aggressive parents (Howard \& Johnson, 2004), maintaining discipline (Austin, Shah \& Muncer, 2005), being evaluated by others (Kyriacou, 2001), attending after school and evening meetings (Romano \& Wahlstrom, 2000), lack of stimulation (Burke \& Greenglass, 1993), and high external expectations (Murray-Harvey et al., 2000).

Other variables such as direct action coping, palliative coping, job satisfaction and experience have been studied in relation to stress. Research on direct action and palliative coping methods has been inconsistent across several studies (Fortes-Ferreira et al., 2006; Austin, Shah, \& Muncer, 2005) for bank employees and high school teachers, respectively. These studies have found a relationship between stress and coping methods. Teachers with lower levels of stress used more direct action coping while those with higher levels of stress used more palliative coping methods. Therefore, the research is a unclear as to whether there is relationship between stress, direct action and palliative coping in teachers.

Research on job satisfaction in teachers has not been well-researched. Ho and Au (2006) examined the relationship between stress and job satisfaction. They found that job satisfaction was negatively correlated with work-related stress. That is, teachers with higher stress may experience lower job satisfaction. Finally, research on experience has been inconsistent. Yagil (1998) found that a relationship existed between the amount of teaching experience and stress. That is, teachers with less experience undergo higher levels of stress than those with more teaching experience. On the other hand, Lease (2001) found that there was no relationship between work-related stress and the length of teaching experience.

The current study examined the relationships among total stress, types of stressors, coping strategies and teachers' job satisfaction. A negative correlation between stress and job satisfaction was found. Teachers with higher levels of total stress reported lower ratings of job satisfaction. Ho \& Au's (2006) study reported similar findings. They found that work stress correlated with low teacher satisfaction, as well as selfesteem and psychological distress. Nonetheless, Ho \& Au found that the teachers they surveyed had a high rate of job satisfaction. The current study also found that the teachers had a relatively high rate of job satisfaction $(M=3.58)$ on a 5 -point scale.

Each type of stressor (Role Ambiguity, Role Stress, Organizational Management, Job Satisfaction, Life Satisfaction, Task Stress, and Supervisory Support) significantly correlated with teachers' job satisfaction. Results of a step-wise regression indicate that the Role Stress accounted for the most variation in teachers' job satisfaction. Life Stress and Task Stress also accounted for additional variance.

The main stressors as measured by the Teachers Stress Inventory are similar to the stressors that are faced by all teachers. Overall, teachers, regardless of their levels of experience, had three main stressors, role stress, life stress and task stress that determined a significant amount of variance in their job satisfaction. Role stress focuses on stressors surrounding a teacher's responsibility such as, performance criteria, extra work, conflicting demands, and lack of resources and materials. Kyriacou (2001), Chaplain (1995) and Romano and Wahlstrom (2000) found teachers' stress resulted from conflicting demands, inadequate resources and lack of funding, respectively. Life Stress focuses on the teacher's life such as, whether a teacher is hopeful, finds life enjoyable, indicates that life is rewarding, or if life is boring or lonely. Life stress has not been a main focus in the previous studies, however in this study it is considered to be one source contributing to teachers' job satisfaction. Task stress refers to dealing with specific tasks including discipline problems, completing reports and paperwork, and participating in school activities outside regular working hours that lead to increased stress levels. Austin, Shah and Muncer (2005) found that the main sources of stress for teachers from the UK are work-related stressors such as, time management and student discipline problems. In the current study, task stress contributed to teachers' overall level of job satisfaction.

This study explored whether stress was related to important demographic variables. Chaplain (1995) found that stress levels varied based on other variables, such as the teacher's gender, age, and years of teaching. In the current study, the student body's socioeconomic status was explored in relation to total stress, direct action coping, palliative coping and total satisfaction. Results indicated that participants teaching in
lower SES schools tended to rate themselves as having higher stress levels than those in higher SES schools. Additionally, teachers in higher SES schools reported using more direct action coping than teachers in lower SES schools. The student body's SES was not found to be related to total satisfaction or palliative coping methods. Additionally, the grade level taught by the teacher (elementary, middle or high school) and the community setting (rural, urban or suburban) were not found to be related to stress, total satisfaction, direct action, or palliative coping.

Romano and Wahlstrom (2000) indicated that females and males experience different types of stressors. However, due to the small male sample, this was not directly explored. For the purpose of this study, a female-only sample was used to further examine the relationship between levels of experience and ratings of different stressors (Role Ambiguity, Role Stress, Organizational Management, Job Satisfaction, Life Satisfaction, Task Stress, and Supervisory Support). Results indicated that the female teachers' level of teaching experience was related to Life Stress and Supervisory Support. That is, female teachers with less experience rated that they felt more stress related to life and supervisory support from their administrators.

The study also examined the relationships between total stress, direct action and palliative coping methods. It was hypothesized that teachers who use more direct action coping would have decreased levels of stress; whereas, teachers who use more palliative coping would have increased levels of stress. However, stress was found to have no relation to either direct action or palliative coping methods. This finding is incongruent with Kyriacou's (2000) notion that direct action coping methods are better at reducing the individual's level of stress. He also noted that palliative coping methods only lessen the
negative feelings associated with stress, not the actual level of stress. Fortes-Ferreira et al. (2006) found that direct action and palliative coping methods were related to work stress and psychological well-being among bank employees. Specifically, the study found that direct action coping was an effective coping method in reducing work-related stress. Palliative coping was found not to be an effective coping method and was associated with higher levels of psychological distress. Austin, Shah and Muncer (2005) found that stress was related to the type of coping strategy in high school teachers. They found that negative coping methods such as, accepting responsibility, uncontrolled aggression and escape avoidance were ineffective at reducing stress. However, a palliative physical coping method such as, exercising, was effective at reducing stress. The current study suggested that reducing the source of a stressor or dealing with the negative emotions from a stressor may be as effective for teachers.

This study also examined the interactions between the level of teaching experience, stress, coping, and job satisfaction. The results indicated no significant differences between experienced and inexperienced teachers across stress, coping methods, or job satisfaction. These results are inconsistent with some previous research which found differences between experienced and inexperienced teachers across stress and job satisfaction (Yagil, 1998; Chaplain, 1995). Yagil (1998) examined the relationship between the level of teaching experience and stress in kindergarten and elementary school teachers in Israel. The results indicated that inexperienced teachers undergo higher levels of stress than experienced teachers. Yagil (1998) suggested this may result from inexperienced teachers having more role ambiguity and uncertainty surrounding their position. Chaplain (1995) studied experience and stress in elementary
school teachers in England. He found that there was a tendency for less experienced teachers to be more stressed than more experienced teachers. As well, Chaplain (1995) explored job satisfaction. Results indicated that approximately one third of teachers were satisfied with their profession. Although job satisfaction has been studied (Ho \& Au, 2006; Chaplain, 1995), the relationship between experience, stress, and job satisfaction had not been studied. Therefore, this study hypothesized that a relationship would exist between experience and job satisfaction. Although results from Yagil (1998), Ho \& Au, 2006, and Chaplain (1995) were not replicated, Lease (1999) found no differences between experience, stress, and coping in University professors.

## Limitations

While this study provides information on teachers in School District 8, Saint John, there are a number of limitations. The first limitation involves sample size, and the generalizability given the size of the School District. Due to the fact that the principals of all the schools were emailed to see if the examiner could leave questionnaires at their schools for the teachers to complete, there was a relatively low rate of return. Only eighteen of the thirty-eight schools in School District 8 agreed to have questionnaires left at their schools for teachers to complete. The possible sample size was reduced to less than half of the teachers in the District. The actual sample size was one hundred and seventeen teachers with two excluded being excluded for failing to complete all the questionnaires. There was a relatively low response rate of 34.6 percent which is of concern. This low response rate not only results from teachers' lack of participation, but also the lack of interest from the principals to have their teachers involved. Future
research should include a larger population possibly from more than one School District in New Brunswick.

Relatedly, there was a lack of information on the individuals who chose not to participate in this study. Due to the relatively low response rate and the lack of information on nonparticipating teachers, it is hard to know if results would generalize to the entire School District.

The second limitation has to do with the time of the year the data was gathered. Questionnaires were given out to the schools at the end of September and were collected approximately four weeks later. The beginning of the year can be stressful for teachers (Acker, 1995) with getting to know their students and settling them into a routine. Therefore, it may be beneficial to collect data at less stressful times of the school year. Due to the time constraints on this study, this was not possible. On reflection, the academic year is always busy and there may not be an ideal time to do research with teachers.

There were not a lot of teachers in the current study with very little teaching experience. In order to get a large enough group, the most inexperienced group had up to 6 years of teaching experience. This may have limited significant findings between groups varying on the years of teaching experience variable. On the other hand, the mean years teaching for this most novice groups was 3 years and the differences were still expected. It may be that the District has positive programs for new teachers that reduce novice-related stress. On the other hand, conditions may be stressful even for experienced teachers, and thus a reduction in stress with experience not observed. Next
steps might include qualitative research examining why stress levels appear constant over experience level.

Although school culture is not examined in this study, it is important to note that a school's culture can have an impact on teachers' levels of experienced stress. Further research is needed to examine what aspects of school culture impacts teachers' experiences around stress and coping.

## Implications

This study has implications for current and future education students. It is important for students to know the level of stress teachers' experience, the types of stress and the ways to cope with that stress prior to entering the profession. It is unclear whether education students are prepared by their program to cope with the types of stressors they will encounter as a teacher. As well, they may not have the experience to realize the level and types of stress faced by teachers every day. Studies like this may allow education students to be better prepared when entering the teaching profession. Also, these studies provide administrators with information on teachers' levels of stress, the types of coping methods they utilize, and their level of job satisfaction. Further research should examine the efficacy of different types of programs and school factors that could help to reduce beginning teachers' stress and to better prepare them to cope with the demands of teaching (e.g., mentorship programs between beginning and experienced teachers).

This study was completed as part of a Master of Arts in School Psychology program and the findings from this study may be relevant to the school psychology
practice. School psychologists frequently work with teachers to improve students’ learning. They often make recommendations surrounding what a teacher can do to aid in the students' learning. It is important for school psychologists to understand the amount and types of stress that teachers' experience. Providing fewer more effective interventions may add less strain to a teacher's already demanding workload. As well, school psychologists can be a resource for teachers looking for effective coping strategies to deal with stressors.

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## Appendix A:

Informed Consent Form

## Informed Consent Form

The purpose of this research study is to examine the relation between stress, coping strategies, level of experience and job satisfaction in teachers from District 8, Saint John. This document will provide you with information to help you decide if you wish to participate in the study.

This research project is being conducted as a part of the Masters in School Psychology Program from Mount Saint Vincent University. The following people may be contacted regarding the project: Paula Harlow, Masters Student $\quad$ ) and Jamie Metsala, Faculty Supervisor (902-457-6167).

Teachers are asked to complete the following questionnaires: Demographics Questionnaire, Teachers Stress Inventory, Brief COPE, and Teacher Satisfaction Scale. The questionnaires will take approximately 20 minutes to complete.

Participation in this research project poses minimal risk to the participant.
Participation is completely voluntary and you may choose to withdraw from the study at any time without penalty. You may also choose not to answer questions you feel uncomfortable with. All research information gathered will remain confidential. Access to any of the information collected will be restricted to those performing the study. Individuals will not be identified in presenting any research findings. Your name will not appear on any questionnaires and you will be anonymous.

If you would like to receive information on the outcome of the research study please provide your email address below. Individual results are not given only group averages are reported.

Should you have any concerns about this study and wish to speak to someone not directly involved in this study, please contact the Chair of the University Research Ethics Board (UREB) c/o MSVU Research and International office at 902-457-6350 or via email at research@msvu.ca.

I have read the description of the study and agree to participate. I hereby give my consent for the researched to use the information gathered in this study.

Name: $\qquad$
Signature:
Date: $\qquad$

Email (if you wish to receive information on the outcome): $\qquad$

## Appendix B:

Demographics Questionnaire

Demographics Questionnaire
Adapted from Arikewuyo (2004)

Please answer all of the following questions.

1. Age: $\qquad$ years, $\qquad$ months
2. Sex: $\qquad$ Male $\qquad$ Female
3. Number of year teaching: $\qquad$
4. Education: $\qquad$ Teacher's Certificate $\qquad$ B.Ed.
$\qquad$ Master's in Education $\qquad$ Ph.D.

Other (please specify) $\qquad$
5. In which quadrant of the city are you teaching: $\qquad$ East $\qquad$ West
$\qquad$ North $\qquad$ South (Uptown) $\qquad$ Outside of Saint John
6. Community setting: $\qquad$ rural $\qquad$ urban $\qquad$ suburban
7. What socioeconomic status (SES) do the majority of your students come from?
$\qquad$ low $\qquad$ medium $\qquad$ high $\qquad$ not sure
8. Grade level you are currently teaching: $\qquad$
9. Have you taught in the past: $\qquad$ Elementary $\qquad$ Middle School
$\qquad$ High School
10. Are you generally satisfied with your profession? $\qquad$ No or $\qquad$ Yes
11. Number of years until retirement: $\qquad$

## Appendix C:

Teacher Stress Inventory

Teacher Stress Inventory - Revised
Schutz \& Long (1988)

The Teacher Stress Inventory-Revised is used to measure the types of stressful events that teachers encounter. Please answer all of the following questions using this guide: $1=$ never, $2=$ rare, $3=$ sometimes, $4=$ often, and 5 always.

## never

1. I can predict what will be expected of me $\quad 1 \begin{array}{llllll} & 2 & 3 & 4 & 5\end{array}$ in my work tomorrow.
2. I am unclear on what the scope and responsibilities of my job are.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
3. I am uncertain what the criteria for evaluating my performance actually are.
4. I receive enough information to carry out my job effectively.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
5. When asked, I am able to tell someone exactly what the demands of my job are.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
6. I find that I have extra work beyond what should normally be expected of me.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
7. The criteria of performance for my job are too high. $1 \quad 2 \quad 3 \quad 4 \quad 5$
8. I am given too much responsibility without adequate authority to carry it out.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
9. I receive conflicting demands from two or more people or groups in the school setting.
10. I have to buck a rule or policy in order to carry it out.

1
11. I have a hard time satisfying the conflicting demands of students, parents, administration, and teachers.
12. I am given school-related duties without adequate resources and material to carry them out.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
13. I have influence over what goes on in my $\begin{array}{lllllll}\text { school. } & 1 & 2 & 3 & 4 & 5\end{array}$
14. I'm informed of important things that are happening in my school.
$1 \quad 2$
15. My administrative head asks my opinion on $\begin{array}{lllllll}\text { decisions that directly affect me. } & 1 & 2 & 3 & 4 & 5\end{array}$
16. All in all, I would say that I am extremely satisfied with my job.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
17. My job is extremely important in comparison to other interests in my life.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
18. Knowing what I know now, if I had to decided all over again whether to take this job, I would definitely do so.
19. In general, my job measures up extremely well with the sort of job I wanted before I took it. 1
20. My administrative head brings me together with other faculty in joint meetings to make decisions and solve common problems. $\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
21. My administrative head gives me full information about the things which directly involve my work.
22. I currently find my life very rewarding.

1
23. My life is currently quite lonely.

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

24. I currently find my life quite enjoyable.

1
25. I currently find my life quite boring.
26. My life is currently very hopeful.

1
1

29. There is a lot of stress just keeping up with changing professional standards.
30. Trying to keep my work from being too routine and boring puts a lot of stress on me.
31. Having to participate in school activities outside of the normal working hours in very stressful to me.
32. I find that trying to be attentive to the problems and needs of fellow faculty is very stressful.
33. When I really need to talk to my administrative head, (s)he is willing to listen.
34. My administrative head pays attention to what I am saying.
35. My administrative head stands up to outsiders for the people (s)he supervises.
36. When I have conflicts with parents or students my administrative head gives me the kind of support I need.
$\begin{array}{lllll}1 & 2 & 3 & 4\end{array}$

## Appendix D:

The Brief COPE

## Brief COPE

Carver (1997)
The Brief COPE is used to measure the types of coping strategies individuals utilize when experiencing a stressful encounter. Please complete all of the following questions using the following guide: $0=$ not used at all; $1=$ rarely used; $2=$ often used; and $3=$ used a lot.

When responding to the questions below, please think of a stressful event that you are encountering now or have encountered in the past and what coping strategies you have used.

|  | not <br> used |  |  | a |
| :--- | :--- | :--- | :--- | :--- |
| 1. I've been concentrating my efforts on doing <br> something about the situation I'm in. | 0 | 1 | 2 | 3 |
| 2. I've been taking action to try to make the <br> situation better. | 0 | 1 | 2 | 3 |
| 3. I've been trying to come up with a strategy <br> about what to do. | 0 | 1 | 2 | 3 |
| 4. I've been thinking hard about what steps to take. | 0 | 1 | 2 | 3 |
| 5. I've been trying to see it in a different light, to <br> make it seem more positive. | 0 | 1 | 2 | 3 |
| 6. I've been looking for something good in what <br> is happening. | 0 | 1 | 2 | 3 |
| 7. I've been accepting the reality of the fact that <br> it has happened. | 0 | 1 | 2 | 3 |
| 8. I've been learning to live with it. | 0 | 1 | 2 | 3 |
| 9. I've been making jokes about it. | 0 | 1 | 2 | 3 |
| 10. I've been making fun of the situation. | 0 | 1 | 2 | 3 |
| 11. I've been trying to find comfort in my religion <br> or my spiritual beliefs. | 0 | 1 | 2 | 3 |
| 12. I've been praying or mediating. |  |  |  |  |

used a lot

1. I've been concentrating my efforts on doing something about the situation I'm in.
2. I've been taking action to try to make the situation better.
3. I've been trying to come up with a strategy about what to do.
4. I've been thinking hard about what steps to take. 0
5. I've been trying to see it in a different light, to make it seem more positive.
6. I've been looking for something good in what is happening.
7. I've been accepting the reality of the fact that it has happened.
8. I've been learning to live with it.

0
1
3
12. I've been praying or mediating.

0
12
3
13. I've been getting emotional support from others. 0
14. I've been getting comfort and understanding from someone.
15. I've been trying to get advice or help from other people about what to do.
16. I've been getting help and advice from other people.
17. I've been turning to work or other activities to take my mind off things.
18. I've been doing something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping or shopping. 0
19. I've been saying to myself 'this isn't real'.
20. I've been refusing to believe that this has happened.
21. I've been using alcohol or other drugs to make myself feel better.
22. I've been using alcohol or other drugs to help me get through it.

0

0
1
2

0

0

0

0

0

0
1
2

3

## Appendix E:

Teacher Stress Satisfaction Scale

## Teacher Satisfaction Scale

Ho \& Au (2006)

The Teacher Satisfaction Scale is used to measure overall satisfaction with one's career as a teacher. Please answer all of the following questions using this guide: $1=$ strongly disagree, $2=$ somewhat disagree, $3=$ neither disagree/agree, $4=$ somewhat agree, and $5=$ strongly agree.

| strongly | strongly |
| :--- | ---: |
| disagree | agree |

1. In most ways, being a teacher is close to my idea.
2. My working conditions as a teacher are excellent.
3. I am satisfied with being a teacher.
4. So far I have gotten the important things I want from being a teacher.
5. If I could choose my career over, I would change almost nothing.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$

[^0]:    Note. ${ }^{*}<.05,{ }^{*}$ p $<.01$

