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## A Study of the Relationship of Stress, Burnout, Hardiness, and Social Support in Pre-Kindergarten and Kindergarten Teachers

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A STUDY OF THE RELATIONSHIP OF STRESS, BURNOUT, HARDINESS, AND SOCIAL  
SUPPORT IN PRE-KINDERGARTEN AND KINDERGARTEN TEACHERS

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The School of Education

by  
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## ABSTRACT

The purpose of this study was to examine the relationship and differences of hardiness stress, burnout, social support, and demographics such as age, years of service, and education with 196 pre-kindergarten and kindergarten teachers' from public, private, for-profit, and non-profit schools and to determine if hardy teachers are less vulnerable to burnout. A survey design method was chosen to produce statistics that indicated a numerical description of the relationship between these variables and the pre-kindergarten and kindergarten teacher. Four surveys were used: *Burnout Inventory* (MBI) (Maslach, Jackson, and Schwab, 1986) *Teacher Concerns Inventory* (Firmian, 1985), *Dispositional Resilience Scale* (DRS-15) (Bartone, 2007), and the *Social Support Questionnaire* (SSQ6) (Sarason, et. al., 1987). A Pearson's' product-moment correlation was used to determine the relationship between hardiness, stress, burnout, social support, and the demographic characteristics of age, education, and experience. An Analysis of Variance (ANOVA) was used to determine the differences in the relationship between each of the dependent variables; hardiness, stress, burnout, and social support with the independent variables of age, education, and experience.

## CHAPTER 1: INTRODUCTION

### **Significance of the Problem**

Teaching is a complex and demanding profession. Pre-school teachers are leaving the profession at an alarming rate due to the negative political climate, poor work environments, lack of parental support and low pay (Schoenfeld, 2001; Travers and Cooper, 1996). High teacher turnover and a national teacher shortage has become of national concern. According to Ingersoll and Smith (2004), one of every two teachers quit after five years. One possible explanation teacher's leave the profession is due to stress and burnout. Early Childhood Teachers experience a broad range of teacher stress that can be attributed to the following factors such as crying children, dressing and undressing children, lunch-time and clean-up, sleep monitoring, continuous exposure to germs and disease, lack of breaks during the work day, and a clear delineation of work duties. The concept of *teacher stress* was defined almost forty years ago in the professional literature as the situation where "a response of a negative affect (such as anger or depression) results from the teacher's job and is mediated by an appraisal of threat to the teachers self-esteem or well-being and by coping mechanism activated to reduce the perceived threat" (Kyriacou, & Sutcliffe, 1978, p.159). This definition is predicated on the belief that stress is measured subjectively. Stress, has also been described as resulting from an imbalance between demands and resource, or as occurring when the pressure exceeds one's perceived ability to cope (Lazarus & Folkman 1984). Burnout has been defined as feelings of emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach & Jackson, 1986). Burnout sets in when an individual's demands drain their resources. Variables associated with

stress and burnout are societal and cultural, environmental, school-specific and teacher-specific (Lambert, Ulrich, & McCarthy, 2012). As a society, early childhood teacher stress and burnout is one of the highest in all of the professional fields. Early childhood teachers that have good coping skills, engaged learners, and high self-acceptance have less stress and burnout (Hall-Kenyon, et. al., 2013). In order to study this phenomenon, researchers need to explore the relationship between stress, burnout, coping, and self-efficacy.

## **Stress**

The concept of teacher stress was defined in professional literature as a process that involves the perception of an imbalance between environmental demands and the individual's response capability to meet those demands (Kyriacou & Sutcliffe, 1978). Thus, early childhood teacher stress is neither a stimulus nor a response, but a situation that arises when negative affects result from the teacher's job. Failing to meet the demands can result in raising anxiety levels. Teacher stress as later defined by Kyriacou (1989), is the experience of negative emotions such as anger, tension frustration, anxiety, depression, and nervousness resulting from their daily tasks as a teacher.

## **Burnout**

Teacher stress is not the same as burnout. If an early childhood teacher chronically feels she has failed her students, she is likely to experience burnout. Maslach and Jackson (1986) have defined *burnout* to include feelings of emotional exhaustion, depersonalization and the lack of personal accomplishment. *Emotional exhaustion* is the feeling of being emotionally overextended and exhausted by one's work. This represents the basic dimension of burnout that causes individuals to feel mentally drained and physically depleted of energy. Individuals

experiencing emotional exhaustion have trouble facing their day to day work responsibilities and sometimes struggle with finding ways to replenish themselves both at work and in their personal lives (Maslach & Goldberg, 1998). *Depersonalization* represents the interpersonal dimension of burnout. It refers to a negative and detached response to others. Depersonalization is usually common response for individuals experiencing emotional exhaustion; and eventually turns into dehumanization in the home and work environment. The third dimension of burnout is *personal accomplishment*. This dimension represents the self-evaluation process of burnout and the decline in the teacher's feelings of competence and productivity. Reduced personal accomplishments results in the teacher experiencing a sense of inadequacy that can grow into a sense of low self-esteem and depression. The teacher then will experience less satisfaction in their work environment, and difficulty coping in their personal lives (Maslach & Goldberg). According to the research by Pines and Aronson (1988) burnout is caused by our need to believe that our lives have meaning and that everything we do is useful to society and important. This belief that individuals who try to find meaning in their lives through their work and feel that they have failed, the result in burnout.

## **Perception**

Predictors of burnout include the early childhood teacher's inability to use preventive coping resources, manage classroom demands, or manage classroom disruptions (Barber, Carson, & Tsoulpas, 2012). Research indicates that teachers with better coping resources did experience lower levels of burnout, but the resources did not lead the teacher to the *perception* that the class was less demanding (Barber, Carson, & Tsoulpas). Barber, Carson and Tsoulpas, noted the teacher perceived child behavior as disruptive if it impacted the teaching process as a whole. For example, a teacher may perceive stress when she has a class of twenty-five and one

student with special needs who requires individualized instruction, which she may not physical be able to provide without jeopardizing the instruction for the entire class. This results in the belief of the teacher that they have failed their students. Pre-kindergarten and kindergarten teachers specifically have a romantic view of the early childhood classroom (Macfarlane & Noble, 2005). Their perceptions of what should occur daily in an early childhood classroom are that the group size is small, equipment is plentiful, the parents are helpful, and the children follow the directions of the teacher. This romantic perception is the main reason for burnout in the early childhood profession. The teacher's expectations are different than the actual day to-day activities. Those expectations are not met, and the teacher becomes frustrated and stressed. This frustration and stress can lead to burnout.

### **Self-Efficacy**

A repeated feeling of failure could prevent teachers from developing a strong sense of self-efficacy. Bandura (1996) proposes that the major source of teachers' burnout is their inability to develop a strong sense of self-efficacy. Self-efficacy refers to beliefs in one's own abilities to increase levels of motivation to activate cognitive resources and take the necessary action to exert control on the demands of the task (Bandura, 1997). The lack of self-efficacy is increased by policies, lack of administrative support, student behavior, and school environment (Chan et. al., 2008). Teachers play the most essential role in quality early childhood education. Teachers are responsible for integrating multiple instructional supports to maximize learning and create responsive interactions to help children develop cooperatively, successfully.

## **Sources of Teacher's Stress**

Teacher stress can be influenced by many factors. Some of these factors are the teacher's school environment, the teacher's perception of their skills, the lack of administrative support, personal life events and their relationship with the students in their classroom.

### **Environment**

In the transactional model of stress by Lazarus and Folkman (1984), stress is the result of a transaction between people and their external environment. This model contends that stress may not be a stressor if the person does not perceive the stressor as a threat but rather as a challenge (Lazarus & Folkman, 1984). When confronted with an event, an individual engages in a process called primary appraisal. Primary appraisal (Lazarus, & Folkman), according to the individual in the situation, may be seen as stressful, or for others, it may be seen as benign or non-stressful. The next step the individual will engage in the secondary appraisal (Lazarus, & Folkman). In secondary appraisal, the individual engages in a cognitive evaluation of their resources in order to deal with the loss, threat, or challenge that is represented by the event. Primary appraisal allows the appraisal of the stressful character of the situation, whereas secondary appraisal permits one to evaluate their capacity to confront the situation.

### **Teacher Perception**

Preschool and Kindergarten teacher's main motivation for teaching is to help nurture, educate, and support young children and their families (Bullou Jr. et. al, 2012). Teachers experience an increase in stress when there is a decrease in the time dedicated to teaching, and little support from the administration (Li & Perry, 2011). Staff-to-child ratio and workplace support are interconnected with teacher stability (Casas, Raikes, Torquati, 2007). In addition,

the stress associated with high stakes testing and accountability increase the teacher's level of stress. This stress can lead to further teacher burnout and retention (Boyd, Loeb, Lankford, and Wyckoff, 2007). These events or situations are perceived as threats or challenges to the individual and can be either physical or psychological (Pastorino & Portolli, 2009). Teachers experience stress or perceive things as threatening when they do not believe that their resources for coping with obstacles are enough. As teacher's experience stress factors and challenges in their lives, they draw from their past experiences to serve as a model for imitation (Friedman, 2004). Bandura (1997) has suggested that teachers look for positive social support, prior experiences from a group of professionals, and physiological stimuli as performance quality indicators. In these professional support groups Lazarus and Folkman (1984) believe that, daily events predict changes in stress better than life events (Admiraal, Korthagen, & Wubbels, 2000).

### **Administrative Support**

Administrative support can also have an impact on teacher stress and burnout. Teachers see an increase in stress when there is a decrease in the time dedicated to teaching and little support from administration (Li & Perry, 2011). Lack of administrative support includes but is not limited to the following teacher perceptions: administrators are "not supportive" if they do not handle discipline to the teachers' liking. Administrators do not understand the instructional programs that the teachers offer or provide the time and resources the teacher feels are necessary. Administrators do not value the teachers' opinions or involve them in the decision-making. Administrators do not support teachers in disputes with parents (Tapper, 1995). Teachers need administrative support, societal support, and increased teaching controls of the environment, as well as opportunities to influence policy to reduce job stress and increase job satisfaction (Li & Perry, 2011).

## **Life Events**

Major life events such as marriage, school, and death of a loved one, a sick child, and financial concerns can either be a positive or negative stress event. Positive life events are typically not linked to stress, while negative events show a strong correlation to stress (Pastorino & Portillo, 2009). Teachers face increasing pressure and scrutiny with accountability to local and national classroom standards. This stress can lead to further teacher burnout and retention (Boyd, Loeb, Lankford, and Wycoff, 2007). Low wages increase the teacher's external factors of stress that are not related to the classroom. For example, paying for their electric bill, buying groceries or a broken car, medical bills, may greatly upset a teacher prior to coming to school.

## **Relationship to Students**

Research indicates that job satisfaction is positively related to teacher-student relationships (Brekelmans, Veldman, Tartwijk, & Webbels, 2013). The teacher-student relationships in which the student had challenging behaviors or special needs created a negative impact on the teacher. Behaviors reflecting student apathy or lack of effort are often regarded as stressful (Blasé, 1986). In addition to apathy, student behavior that reflects the lack of respect for the teacher is most likely to contribute to stress (Kyriacou & Sutcliffe, 1978).

Job satisfaction in any profession, including teaching can be tied back to the theories of human motivation. The most relevant of the motivation theories is that of Abraham Maslow's hierarchy of needs theory (Maslow, 1943). Teachers who are satisfied with their jobs display higher levels of motivating behavior and performance as well as low levels of stress, anxiety and burnout (Bong, Klassen, Usher, 2010). Intrinsic work motivation or the extent to which professionals are motivated to perform well in their job and the perception that they are valued predict the teachers' intention to stay even under adverse external conditions (Haberman, 2004).



Teachers need administrative supports, societal supports, and increasing teaching controls of the environment and opportunities to influence policy to reduce job stress and increase job satisfaction.

## **Background of the Study**

### **Social Support**

Social support is the availability of people that have demonstrated that they care, love, and value us (Kobasa, 1982); those that we can trust and rely on. Social support, according to Sarason, Levine, Basham, & Sarrason, (1983), increases the ability to withstand and overcome frustrations and problem-solving challenges. People perceive themselves as having high levels of social support, experience more positive events in their lives and have higher self-esteem (Sarason et. al). Perceived social support may serve as a buffer to stress because it influences an individual's appraisal of a stressful situation and their coping strategies, perhaps leading to transformational coping strategies. According to early research the personality trait of *hardiness* Kobasa (1982), social support could be more effective in mediating stress. Those with a hardy personality may make better use of social support to mediate stress.

### **Conceptual Framework**

The conceptual framework for hardiness as a pathway to resilience is derived from the concept of existential psychology, which is from the field of psychotherapy; hardiness is the belief that inner conflict within a person is due to that individual's confrontation with life's issues. In this approach, life is presumed to be an ongoing stressful phenomenon, due to the continually changing, unpredictable, and demanding developmental process (Maddi, 2011, p.

294). This level of stress in an individual determines their level of strain and stress that impacts their health and well-being. The pathway to resilience is the attitude and strategies constituting hardiness. Individuals with a hardy personality see challenge as an opportunity to see obstacles positively. They hold the belief that they can exercise control over the situation and have commitment to the situation. *Control*, is viewed as the individual's ability to influence their lives through change. *Commitment* is the belief that we are all worthwhile and here for a purpose. According to the research by Kobasa & Maddi (2004), not all individuals exposed to stressful social conditions develop symptoms of stress, burnout or illness. Positive psychology (Seligman & Csikszentmihalyi, 2000) has precipitated relevant theorizing and research in positive topics such as happiness, optimism, subjective well-being, wisdom, humor, and compassion in developing resiliency to stress. These topics emphasize the positive features of performance and health rather than limitations and failures, and how to explain this. Hardiness (Maddi, 2002; Maddi & Kobasa, 1984), adds existential courage to the mix. Hardiness is a combination of attitudes that provide the courage and motivation to do the hard, strategic work to turn stressful circumstances from potential disasters into growth opportunities.

### **Statement of the Problem**

Early childhood teachers are leaving the profession at an alarming rate, which may be part due to burnout, which is the result of long-term stress. The literature has uncovered that the personality characteristics of hardiness seem beneficial in protecting individuals from stress and burnout (Chan, 2003). Hardy individuals are committed to what they do; believe they have control over the causes and solutions of the problem and view life changes as challenges and opportunities (Maddi, 2011). Hardy individuals look at change as an opportunity, and have the

courage to change a negative situation into a positive one. According to Bandura (1997), individuals with stronger individual efficacy beliefs adopt behaviors that are more likely to implement desired outcomes. The purpose of the hardiness personality is to identify situations and apply coping mechanisms whereby one can decrease the stressful circumstances through cognitively and emotionally exploring one's appraisal of them. Feedback was provided to deepen motivational self-perceptions of commitment, control and challenge (Kahn, Maddi, & Maddi, 1998).

### **Purpose of the Study**

Life is an ongoing stressful phenomenon due to the continually changing, unpredictable, and demanding developmental process (Frankl 1963; Graber, 2004; Kierkegaard, 1954; Maddi 1996, 2004a; May et al. 1967). In order to meet these daily challenges, early childhood teachers must have a strong resilience and sense of self-efficacy. They must have existential courage to make decisions for the future in the way to grow in wisdom and fulfillment. The purpose of this study was to examine the correlation of stress, burnout, hardiness, demographic social support and demographic information such as age, years of service and education in pre-kindergarten and kindergarten teachers' and to determine if a hardy teachers are less vulnerable to stress and burnout. Burnout is depicted by three factors: *emotional exhaustion*, *depersonalization*, and *lack of personal accomplishment*, using the *Maslach Burnout Inventory* (MBI). Teacher stress was explored using the *Teacher Concerns Inventory* and the total stress score. Teacher hardiness level (control, commitment, and challenge) was determined using the total hardiness score on the *Dispositional Resilience Scale* (DRS) (Bartone, 2007). The *Social Support Questionnaire* (SSQ6) was used to illustrate by a measure of the extent of the perceived support given to the

teachers and satisfaction with the perceived social support in a population of early childhood teachers. The Educators demographic data was used to determine if there is a relationship between the selected demographic characteristics and teacher's burnout, stress, social support, and hardiness. A survey design method was chosen to produce statistics that are a numerical description about the relationship between these variables and the early childhood teacher.

### **Research Questions**

1. Is there a statistically significant relationship between hardiness and each of the following variables: stress, burnout, and demographic characteristics, such as age, education, and years of teaching experience?
2. Is there a statistically significant relationship between social support and levels of hardiness?
3. Are there differences in hardiness, stress, burnout, and social support levels by teacher demographic characteristics (age, experience, and education)?

### **Hypothesis**

1. A statistically significant relationship exists between hardiness, stress, burnout and demographic characteristics such as age, education, and years of experience in this sample of kindergarten and early childhood teachers. The lower level of stress and burnout the higher levels of hardiness.
2. A statistically significant relationship exists between social support and the levels of hardiness. Hardy individuals have strong social support.
3. Hardiness, stress, burnout, and social support levels of teacher differ by demographic characteristics (age, experience, and education).

## **Null Hypothesis**

1. A statistically significant relationship does not exist between hardiness, stress, burnout and demographic characteristics such as age, education, and experience this sample of kindergarten and early childhood teachers. Teachers high in hardiness will experience stress and burnout.
2. A statistically significant relationship does not exist between social support and the levels of hardiness.
3. Hardiness, stress, burnout, and social support levels of teacher are not different by demographic characteristics (age, experience, and education). All teachers regardless of the age, experience or education have the same levels of stress, burnout, and hardiness.

## **Analysis**

To address the questions of a correlation between hardiness and the variables of stress and burnout, a Pearson's product-moment correlation coefficient (Pearson's R) method was used (Hinkle, et.al., 2003). It is a measure of the linear correlation (dependence) between two variables  $X$  and  $Y$ , giving a value between  $+1$  and  $-1$  inclusive, where  $1$  is total positive correlation,  $0$  is no correlation, and  $-1$  is total negative correlation. It is widely used in the sciences as a measure of the degree of linear dependence between two variables. In addition, Pearson's R method was used to determine if there was a correlation between social support and levels of hardiness.

To determine the differences in hardiness, stress, burnout, and social support by demographic characteristics (age, education, and experience) Analysis of Variance (Anova) was used to determine the differences (Hinkle, et. al., 2003). The dependent variables are hardiness, stress, burnout and social support. The independent variables are age, experience, and education.

## **Definition of Terms**

**Stress.** Stress is the “imbalance” between demands and resource, or as occurring when the “pressure exceeds one’s perceived ability to cope” (Lazarus & Folkman, 1984, p.19).

**Burnout.** Burnout in teachers represents teachers’ negative responses to the mismatch between job requirements and perceived abilities (Tang et al., 2001).

**Emotional Exhaustion.** Is defined as a chronic state of physical and emotional depletion that results from excessive job and or personal demands and continuous stress (Wright, & Crapanzaro, 1998).

**Social Support.** Is defined as the perception and actuality that one is cared for, has assistance available from other people, and that one is part of a supportive social network (Cobb, 1976).

**Depersonalization.** An anomaly of personal awareness, a detachment within the self, regarding one’s mind or body (American Medical Association, 2013).

**Self-efficacy.** An individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977).

**Resiliency.** An individual’s ability to adapt to stress and adversity (American Psychological Association, 2014).

**Hardiness.** Personality styles composing of three related general dispositions of commitment, control, and challenge that function as a resilience source in the encounter of stressful conditions (Kobasa, 1979)

**Commitment.** The belief that no matter how stressful things get you are best to stay close to the people and events around you (Kobasa, 1979).

Control. An attitude in hardiness in which the individual believes that no matter how complex things get, you can have an influence on the outcomes going on around you (Kobasa, 1979).

Challenge. An attitude in hardiness in which you believe that life is by nature continually changing and stressful, but that is an opportunity to grow from what you learn by seeing what you can make of the circumstances (Kobasa, 1979).

Existential Courage. The belief that the three attitudes of hardiness, commitment, control, and challenge constitute together (Maddi, 2004a) constitute together the strength and motivation to do the hard work of choose the future and learning from that experience, in order to turn changing and stressful circumstances from potential disasters into growth opportunities.

### **Assumptions**

This study examines the relationship of hardiness, stress, burnout, and teacher concerns in early childhood teachers. A variety of early childhood providers were used as a convenience sampling selected from both public, private, profit, and not for profit schools in the Bayou City and surrounding areas. It was assumed that each participant completed the surveys with what is occurring in their lives. That is they answered the survey truthfully to the best of their ability. The participants were assured of confidentiality and anonymity was preserved and that they could withdraw from the study at any time. It was also assumed that sample taken was representative of all of the schools in the Bayou City area. All early childhood teachers were asked to complete the surveys at all schools. The sample was a representation of all early childhood teachers.

## **Limitations**

This study was completed over a one-month period of time. It was a snapshot of the teacher's stress, burnout, concerns, and hardiness at a certain point in the average school year. The survey was not distributed during high stress times such as the beginning of a school year, testing weeks, or holidays. It was distributed at a time in which normal day-to-day activities were occurring in the classroom. A survey that is distributed during a period of time in which the entire population is stressed would not be an accurate portrayal of the entire year and may skew the results of the study. The heterogeneous sample population may not fully represent all of the population of pre-kindergarten and kindergarten teachers.

## **Delimitations**

The results of this study may be generalizable to all early childhood teachers. A convenience sampling in the Bayou City area was used, which included participants from both profit, non-profit and the public sector. This convenience sample allowed the researcher to use statistical methods to define a confidence interval around the sample mean. By using a heterogeneous convenience sample of the population, the researcher applied the statistical method to a larger population. Participation was strictly voluntary based on the individual's desire to participate in this study.

## **Organization of Paper**

This dissertation is organized as follows: Chapter 1 presents the significance of the problem, sources of teacher stress, background of the study, conceptual framework, statement of the problem, purpose of the study, the research questions; and the definitions of the major



research constructs. Chapter 2 is an extensive review of literature. Emphasis is given to the research on the major constructs of teacher job satisfaction, hardiness, stress, and teacher burnout as well as their theoretical underpinnings. Chapter 3 describes the sample; the data collection procedures; all demographic and personal characteristics of the teachers; the instrumentation, and the treatment of data. Chapter 4 contains the results of the data analyses and the response to the research questions, the hypothesis and the null hypothesis. Pearson's Product-Moment Correlations and an Analysis of Variance are performed using SPSS to examine the relationships between hardiness, stress, social support and burnout. Other results and analyses of the data are also discussed. Chapter 5 is a summary of the results, conclusions, limitations, delimitations, and recommendations for future research.

## CHAPTER 2: REVIEW OF RELATED LITERATURE

### **Introduction**

Teacher stress and burnout are common in the teaching profession, especially in the early childhood field due to low wages, increased standards, parent satisfaction and the daily demands of the students (Skaalvik, & Skaalvik, 2011). Many researchers have distinguished stress and burnout to be an overwhelming problem in the profession. In the most recent research job satisfaction, early childhood teachers with high classroom demands, little social support and low coping skills were high in stress and dissatisfied with their jobs (Lambert, McCarthy, & Reiser, 2013; Convey, 2014; Groneberg, Kusma, Mache, & Nienhaus, 2012; Skaalvik, & Skaalvik, 2011, 2014, 2015; Badri, Ferrandino, Mohaidat, & Mourad, 2013; Karabiyik & Korumaz, 2014; Gius, 2013). High classroom demands have been associated with the No Child Left Behind Act (NCLB, 2001) and the increasing requirements this law has placed on teachers. The NCLB Act required states to develop assessments in basic skills to receive federal school funding with emphasis placed on student annual assessments, academic processes, and teacher qualifications. The NCLB Act has increased the amount of time teachers spend preparing, evaluating, and assessing their classroom. These increasing demands may have a direct impact on the teacher's perception of stress in their work environment which could lead to burnout; however, teachers with increased self-efficacy seem to be better resilient to stress and burnout.

### **Stress & Burnout**

#### **Stress**

Teachers' sense of stress, self-efficacy, and job satisfaction has been the area of research for the past decade (Cano-Garcia, Padilla-Munoz, & Carrasco-Ortiz, 2005; Haken, Bakkr, &

Schaufel, 2006; Tang, Au, Schwarzer & Scmitz, 2001; Shann, 1998; Tschannen-Moran & Woolfok Hoy, 2007; Wilson, 2002). Teacher stress relates to motivation, teacher engagement, and the commitment to the teaching profession (Weiqi, 2007; Weiss, 1999). Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with demands being made on them or with threats to their well-being (Lazarus, 1966). Stress is defined in another model as the physiological response of the body to any demands that are made upon it, which means that the body responds to stress in the same way, despite the nature of the external stressor (Selye, 1956). According to the research by Boghean and Clipa (2015), the perception of stress in preschool and kindergarten teachers is due to the demanding workload, size of the classroom, teacher resources, and low teacher salaries.

Teaching is among the most stressful professions with 42% of teachers reporting high work stress and 36% feeling stressed all or most of the time (Smith, 2000). In a longitudinal study, 95% of teachers experienced increased levels of work stress over time (Chan et. al. 2010). Work stress in teachers has reached alarming levels, threatening the quality of the educational system and subsequent student achievement (Kyriacou, 2001; Travers & Cooper, 1996; Zhang & Sapp, 2008). On a daily basis, early childhood teachers face a variety of stressors in the schools, curriculum, testing, disruptive students, lack of support from parents and administration, lack of social support, accountability, and performance evaluations (Montgomery & Rupp, 2005). Specifically, preschool and kindergarten teachers experience low salaries, low job status, and many classroom responsibilities (Hall-Kenyon, & MacKay, 2012). The impact on teacher stress creating teacher turnover has been reported to be associated with many educational problems such as low quality of education for students (DeAngelis, & Presley, 2011; Levy, Fields, & Jablonski 2006). In the United States teacher attrition rates 30-50% over the past years

(DeAngelis, & Perry), with approximately one third of new teachers quitting within three years (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Ingersoll, 2003), preschool teachers specifically have a turnover rate of 50 percent per year (Miller & Bogatova, 2009). Without effective teachers, class- size increases, school administrators become frustrated, parental concerns grow, and stress levels of the teachers in the school increase.

Stress in educators impacts the quality of the relationships between teacher and students. The quality of this relationship affects the children's social and emotional development as well as their academic success. In a current research study, 1001 teachers completed an anonymous, web-based survey about work place stress and teacher-children relationships (Gooze, Wesley, & Whitaker, 2015). This study examined the relationship of teacher-student quality and the level of the three types of perceived stress: high demands, low control, and low support. The findings indicated that stress had an impact on teacher-student relationships. The more stress the teacher perceived, the more conflict in the teacher-student relationship. Specifically, in early childhood teachers with high levels of stress spent less time teaching literacy and math as well as less time interacting with students and parents (Fantuzzo, et. al. 2012). In this study teachers higher in stress were less likely to use developmentally appropriate teaching strategies compared to teachers experiencing lower levels of job-related stress.

Stress in teachers can also impact teacher dissatisfaction, absenteeism and employee turnover. According to a current study by Dai, Wang, Yang, Yu, and Zhai (2015), in China, 387 middle school teachers completed the Maslach Burnout Inventory (Maslach & Jackson, 1986) and the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The results indicated that work stress and self-efficacy were significantly correlated with burnout (Dai). According to the study by Liu and Onwuegbuzie (2012) 40% of Chinese teachers would leave the profession

for another occupation if the opportunity arose. The teachers in this study indicated that job stress is the main reason for leaving. The long hours, work demands, low-self efficacy, and skill are associated with the increased stress levels and burnout in teachers (Clipa, & Boghean, 2015; Kyriacou, 2001; Liu, et. al., 2015; Shan, Chen, & Chong, 2010; Zhang & Sapp, 2008). A decrease in stress levels indicated more teacher job satisfaction and the commitment to remain in the teaching profession (Liu).

Teacher stress can be decreased with stress management activities such as talking with neighbors, relaxation, exercise, and administrative support (Shan, Chen, & Chong, 2010). Stress management training for teachers can decrease emotional exhaustion, work distress, and irrational beliefs (Jesus, et. al, 2014). According to Jesus, intervention programs decreased teacher stress, increased coping skills, and created more opportunities for teacher relaxation. They also indicated that the decrease in teacher stress increased the teacher's health, attendance, and overall job satisfaction. Similarly, a study by Faulk, Gloria, and Steinhardt (2013), found that positive effects, such as social support, relaxation, and administrative support can predict successful and unsuccessful adaption to teacher work stress. Positive effects mediate the effect on work stress and resilience and can reduce stress in teachers. *Perception* was found to be key; teachers that perceived potential stressors as challenges and not as a threat or loss, were not as stressed when facing problems, but instead may be able to change the situation for the better (Stroeber & Rennert, 2008).

Other stress reduction programming has been demonstrated to reduce teacher absenteeism, turnover, and burnout (Kipps-Vaughan, 2013). Stress management programs contain topics such as positive thinking, relaxation, well-living strategies, social support, and conflict resolution and problem-solving skills. By increasing the teacher's awareness of these

strategies, teacher stress can be reduced. The biggest challenge for stress reduction programming is participation. According to Kipps-Vaughan (2013), offering incentives and recertification points can increase participation from the teachers.

### **Sources of Teacher Stress**

Teaching is a highly stressful career and teachers are leaving the profession at an alarming rate (Hanushek, 2007; Ingersoll, & Smith, 2003). Without effective teachers, class sizes increase, school administrators become frustrated, parental concerns grow, and teacher stress levels increase (Cooper, 2000; Kyriacou, 2000). “High Teacher turnover is an opportunity lost for the health of the teaching profession” (National Council of Teacher Quality, 2008, p.3). In a research study of 366 teachers by Duffy and Lent (2009), teacher job satisfaction was predicted by five classes of variables: work conditions, goal progress, self-efficacy, goal and efficacy relevant supports, and personality traits. Mercer (1997) defines job satisfaction as the perception of high self-efficacy, open-mindedness, having high communication skills, cooperative working desire, and a willingness to learn. Teachers who are satisfied with their jobs see their work environment as supportive, are confident in their abilities to complete work related tasks and goals and report high levels of positivity. Teacher job satisfaction has been the result of considerable research (De Nobile, 2003; De Nobile & McCormick, 2005; Dinham & Scott, 1998, 2000; Luthans, 2002; Sing & Billingsley, 1996; Spector, 1997; and Skaalvik & Skaalvik, 2007). Research indicates that teacher’s experience burnout and decreased job satisfaction (Skaalvik & Skaalvik). Teacher job satisfaction has been related to emotional exhaustion, job demands, control over one’s work environment, school type, nationality, pay rate and social support (Badri & El Mourad, 2011; Chan, 2002, McDonald, 1999; & Van Houtte, 2006).

## **Resources that Reduce Stress**

Social support. Teacher's personal resources such as social support, play a central role in reducing teacher burnout and promoting teacher performance (Kokkinos, 2007; Van Droogenbroeck, Spruyt, & Vanroelen, 2014). According to the latest research (Lambert, McCarthy, & Reiser, 2013; Convey, 2014; Groneberg, Kusma, Mache, & Nienhaus, 2012; Skaalvik, & Skaalvik, 2011, 2014, 2015; Badri, Ferrandino, Mohaidat, & Mourad, 2013; Karabiyik & Korumaz, 2014; Gius, 2013), teacher's experience physical, emotional and mental exhaustion that leads to stress and burnout. Social support has been found to have a buffering effect against burnout. Social support refers to the physical and emotional comfort that teachers receive from administrators, colleagues, parents, and students. It is defined as the "existence or availability of people on whom we can rely, people who let us know that they care about, value, and love us" (Sarason, et. al, 1983, p.127). It has been identified as a resource that enables teachers to cope with stress (Brackett & Katulak, 2006). Positive social support could effectively decrease burnout in emotional exhaustion (Kahn, Schneider, Jenkins-Henkleman, and Moyle, 2006; Ju, et. al., 2015). People who perceive themselves as having social support seem to experience more positive events in their lives and have higher self-esteem (Sarason et al, 1983). There is a distinction made between perceived support and support actually received (Helberc, 2009; Pierce, & Sarason, 1990; Vaux, 1988). Perceived supports pertain to anticipating help in time of need, and actual support is given within a certain time period (Schwarzer & Knoll, 2007; Taylor, 2007). Teachers with supportive supervisors experience less emotional exhaustion, a better attitude towards students and a greater sense of personal accomplishment. Social support enables individuals to cope with stressful situations because they can rely on others for support.

Support from co-workers, parents, and supervisors can help prevent burnout (Russel, et. al., 1987).

Environment and resources. Teacher job satisfaction can also be associated with classroom resources, spirituality, and the financial status of a school (public, non-public, and non-profit) (Convey, 2014). Teachers perceiving high classroom demand with low resources and coping skills had less job satisfaction and planned to leave the teaching profession (Lambert, McCarthy, & Reiser, 2013). Teachers that felt that teaching was part of a ministry were more motivated in their careers and had a higher sense of job satisfaction than teachers who had no sense of ministry and spirituality (Convey). In teachers working for non-profit schools felt more at ease, less stressed and a high sense of job satisfaction than teachers working in a for profit or public setting (Groneberg, Kusma, Mache, and Nienhaus, 2012). In many cases teachers lack the support and resources that might insulate them from the multiple demands of the teaching profession. Teacher stress that occurs for a prolonged period of time, it can lead to burnout.

## **Burnout**

Studies on burnout in the context of teaching showed that teachers feel anxious, frustrated, and suffer from burnout (Salanova, Llorens., & Cifre, (2012). Burnout is regarded as a chronic, job related response syndrome, including the dimensions of emotional exhaustion, depersonalization and, reduced personal accomplishment (Freudenbeger, 1974; Maslach, Leiter, & Schaufeli, 2008). *Emotional exhaustion* refers to the state when teachers have put all of their energy into teaching and have finally run out of options. *Depersonalization* occurs when the teacher develops negative feelings about their school environment and community. *Reduced personal accomplishment* refers to having a negative view of self and not being happy in the teaching profession. According to Skaalvik and Skaalvik (2009), teacher's job satisfaction was



directly related to emotional exhaustion and increased stress. In this study emotional exhaustion was strongly related to time pressures within the school context. Reduced personal accomplishment and depersonalization were most strongly related to the teacher's relationship with parents of their students. Burnout can also be caused by repeated, failed attempts to cope with stressful work events or work conditions (Schafeli, & Enzmann, 1998). Burnout is a negative outgrowth of prolonged and repeated stress. Significant turnover in teachers over the past several years has been related to burnout (Ault, 2011; Ingersoll, 2001). Teacher's perceptions of their own ability to cope with their demands are implicated in burnout. The personal, societal, and financial costs associated with teacher burnout are too high to ignore (McCormick, & Barnett, 2011).

Burnout can occur when teachers perceive their daily interaction with policies, administration, students, and families has been studied for the past decade. Teachers that perceive these events as stressful are more likely to burnout. A correlation between work and engagement was discovered in a meta-analytic study by Cole, Walter, Bedian, and Boyle (2012) which looked at the antecedents and consequences of burnout, finding that chronic burnout is moderator, negatively influencing the day-to-day functioning of the employee. The combination of chronic exhaustion and negative attitudes has a negative impact on employee health and productivity.

Beltman, Mansfield, and Price (2011) determined in a review of relevant research that positive attitude, self-efficacy, coping, teaching skills, professional reflection and growth, and self-care assisted teachers in preventing burnout. In addition, factors such as positive student-teacher relationships, administrative support, and social support from peers enabled teachers to *thrive* rather than just survive or burnout. In a similar study, Raizine, Pilkauskaite-Valickiene, &

Zukauskienė, (2014) investigated the relationships between of the subjective well-being of teachers and burnout for one year. The results indicated that high burnout predicted low subjective well-being. These studies suggest that teachers need on-going support systems to increase positive self-efficacy and coping skills increase their feelings of well-being.

Akca, Fig, and Yaman (2010) surveyed 291 teachers to determine if there was a correlation between burnout and internal-external locus of control. When teachers have an internal locus of control they hold the perception that they can control the outcome of events; when teachers have external locus of control they blame outside forces (Rotter, 1966). This study examined the burnout levels of teachers and whether the explanations they accounted for events were internal/ external control focused as a variable of burnout states. Teachers in this study experienced desensitization and emotional exhaustion however, their personal accomplishment perceptions were found high, and negative judgements about themselves were low. Most teachers in this study had an internal locus of control. Researchers determined by the associations in emotional exhaustion and personal accomplishment dimensions that burnout awareness education could alleviate burnout in teachers. Emotional intelligence and workplace support can protect teachers from burnout (Ju, Lan, Li, Feng, & You, 2015). Accordingly, school administrators should encourage and promote teacher support systems within the school environment to prevent burnout.

In a 2011 research study Sas, Boros, and Bonchis, 115 teaching staff were analyzed for the modalities of burnout, which include emotional exhaustion, depersonalization, and personal accomplishment. This study suggested that the grade level that the teacher is placed in the classroom influences the degree of fatigue felt by the teaching staff. In this population emotional exhaustion is the most representative dimension of fatigue. The professional satisfaction of the

teacher can be very high and negatively correlate with professional satisfaction. Teachers can feel very stress, exhausted and at the same time very satisfied by their accomplishments. This feeling of personal accomplishment suggests that fulfilling a vocation or mission can protect prekindergarten and kindergarten teachers from the factors that are associated with stress and burnout.

There have been studies that have looked at characteristics of the individual, as they impact stress. Self-efficacy and occupational commitment can also reduce teacher stress (Klassen, et. al 2013). *Occupational commitment* is a psychological stated defined as a worker's attachment to a career (Meyer, Allen, and Smith, 1993). Commitment to an organization can result in lower absenteeism, work engagement, and higher job satisfaction (Freund, 2005). Teachers' self-efficacy changes the way in which work stress influences to commitment to continue teaching. Feelings of stress are prevalent in the teaching profession. Self-efficacy beliefs have a positive effect on teacher stress and the commitment to remain in the teaching profession (Klassen, et. al. 2013)

Finally, in the nursing literature, Garrosa, et. al (2008), looked at personality characteristics and there role in moderating job stressors and burnout. A descriptive analysis to examine burnout and predicting variables using a multiple regression model indicated that job stressors explained 20% of burnout. However, hardiness personality characteristics of control, commitment, and challenge and its sub-dimensions were significant predictors in the analysis that decrease the level of burnout.

## Hardiness

The concept of hardiness is derived from the *existential personality theory* (Kobasa, & Maddi, 1977). Existential personality was developed from the fulfillment theories of personality development, and hardiness is the key to the concept of courage. Courage, from the theory of existential personality is that people construct meaning from their lives by recognizing that everything they do constitutes a decision, decisions invariably involve moving towards the future, and choosing a future that expands meaning to our lives. To move toward the future requires courage. As an outgrowth of courage, hardiness continues to explain a person's optimistic interaction with the environment (Khoshaba & Maddi, 2001).

According to Maddi (1976) personality consists of core and peripheral parts. The core personalities are those traits that are common to all people. These personality traits do not change much and exert an influence on human behavior through life. Peripheral parts of personality are learned attributes that are used to explain individual differences among people. Existential personal personality theory proposes that the development of a hardy personality begins early in life. Children experience a variety of events, the need to be challenged with tasks (allowing from varying degrees of success), and parental support to perform the tasks to develop their individuality.

Prior to Maddi's research, Allport (1955) proposed the concept of opportunistic and appropriate functioning to explain the development of individuality. According to Allport, the development of individuality is necessary for a child's survival, which includes expressing themselves and satisfying basic biological needs such as food, water, and shelter. The opportunistic functioning is the child's dependency on the outside world, while at the same time being influenced by it. Appropriate functioning influences are influenced from a sense of body,

self-esteem, self-identity, self-image, rational coping and appropriate striving (hard work to achieve personal goals) (Allport). In addition to getting their biological needs met if the child's needs to be nurtured, supported, and valued are met, he will move to appropriate functioning and have influence on his environment. If he does not have these supports, the child will be dependent on the influence of others into adulthood.

In 1947, Fromm had proposed an additional theoretical construct. He emphasized the individual's need for productive orientation arising from a person's attempt to achieve their potential. That is nurturing and supportive parenting permits a degree of independence and the development of a strong sense of self-esteem and competence. These are the key indicators of a well-adjusted adult and one that has developed a *hardy* personality. Children that do not have supportive and nurturing parents do not attain independence. They have low self-esteem and a non-productive orientation. They become dependent and vulnerable to the exploitation of others.

Based on the previous theories, Kobasa (1979) attempted to explain her original research how highly stressed subjects who remain healthy, differ from those who demonstrate illness and high levels of stress. To test her hypothesis, she relied on four measures of control, one measure of commitment, and several measures of the orientation and response to challenge. The independent variables were stressful life events and illness experienced over a three year period of time. Kobasa defined her findings as *hardiness*, which she describes as a personality trait that makes some individuals more tolerant in stressful events and prevents them from becoming ill. Kobasa identified the *hardy* personality as being composed of the personality characteristics of control, commitment, and challenge.

## **Hardiness Construct**

The hardiness construct is conceptualized by the interrelated traits of control, commitment and challenge. These traits manage the stressful conditions that individuals face in life by adapting these events into positive life experiences (Maddi, & Khoshaba, 1994).

Hardiness is synonymous attribute of withstanding stress without permanent damage. It is not an innate characteristic that magically prevents the negative environment from having influence on the individual. The real causes are protective factors that provide attitudes and skills to resist the negative effects of the environment that individuals face daily (Masten, Best, Gamezy, 1990).

Maddi (2009), in his research about the validity of the hardiness personality determined that there is a positive relationship between hardiness, involvement with others, a sense that one had influence over activities and the positive process of learning from experience. Specifically to turn stresses to advantage, one must stay involved (commitment), strive to have an influence (control), and learn rather than give up (challenge). Considerable research suggests that hardiness constitutes positivity and resiliency in meeting life's changes. Hardiness has been shown to provide a buffering effect in the relationship between stresses and illness symptoms (Baronte, Ursano, Wright, & Ingraham, 1989; Kobasa, et. al, 1982, Kuo & Tsai, 1986; Ghorbani, et al, 2000; Rhodewalt & Zone, 1989). Hardiness predicted both the likelihood of having any absence and the number of absences by the teacher. When the demands were high, high job control was associated with more absences in employees with low levels of hardiness (Brevick, Eid, & Hystad, 2011). Conceptually, hardiness protects health and enhances performance is by its influence on the coping process (Maddi & Hightower, 1999). More specifically, hardiness encourages coping and can transform a stressful event into something less stressful.

Hardiness has also shown to have a relationship between work engagement and burnout. In a recent study involving service members, results indicated that hardiness was positively related to dedication, vigor, work engagement, and negatively to cynicism, emotional exhaustion, and burnout (Euwema, Myles, & Taverniers, 2013). Additionally, Eschleman, Bowling, and Alacorn (2010), examined the relationship between the hardiness and personality variables, stress, social support, and coping. Their analyses suggests that hardiness is positively related to personality traits of commitment, challenge, and control, that protect people from stress, negatively related to personality traits that make stressful situations more intense, and negatively related to stress and strain. In addition, a high hardiness level is indicative of strong social support, coping, and performance (Eschleman, et. al).

Teachers who have the courage (hardiness) to simultaneously favor involvement with others and events (commitment), and trying to influence the outcomes going on around them (control), and emphasize learning from their experiences, whether positive or negative (challenge), have more fulfilling, satisfying, and resilient lives (Maddi, 1997). Teachers high in hardiness have a positive attitude towards school, co-workers, and their own abilities to have a satisfying life (Maddi, Harvey, Khoshaba, & Fazel, 2009). Hardiness has also been related to enhanced performance and better health (Maddi, Harvey, Khoshaba, Lu, Persico, & Brow, 2006).

### **Criticisms of Hardiness Research**

The early research of hardiness has generated a mixed review in terms of validity and methodology (Maddi, 1990). Funk (1992) questioned the interpretation of the hardiness literature because each researcher used different scales to measure hardiness. Additionally, there have been several hardiness scales over the years. Further concerns from Funk indicated that the

first hardiness scales were negatively keyed and skewed the negative effects of hardiness (Funk). To address this concern, Maddi developed the *third generation*: hardiness instrument that consisted to the same number of positively and negatively skewed items (Maddi & Khoshaba, 1994). Another criticism of the hardiness research involves the use of the scores. Some researchers are using the total hardiness scores, while others have used the individual scores of control, commitment and challenge (Hull, et. al, 1987). Hull recommended that all scores be used to increase the validity of the instrument. In addition to the *third generation* hardiness instrument, Paul Bartone (2007) developed a short hardiness inventory that is both negatively and positively skewed and has been proven to be a reliable measure of hardiness.

### **Theoretical Framework**

Job satisfaction in any profession, including teaching can be tied back to the theories of human motivation. The most relevant of the motivation theories is that of Abraham Maslow's hierarchy of needs theory (Maslow, 1973). The basic premise of this belief is that motivation is created by the desire to satisfy needs. Maslow classified these needs in a hierarchy, and, according to Maslow can affect the goals and behavior of an individual (Maslow, 1973).

The *basic physiological needs* of food, clothing, and shelter are at the bottom of Maslow's hierarchy. According to Maslow (1973, p.154) "in the human being who is missing everything in life in an extreme fashion, it is most likely the major motivation would be physiological needs rather than any others". He also notes that when the individual is dominated by physiological needs, all other needs may become simply non-existent or pushed away (Maslow, 1973). The next level in the hierarchy is the need for *safety*, which includes a preference for the familiar, rather than the unfamiliar. Safety needs could be conceived as a



savings account, insurance, home, and tenure with a job, in addition to physical safety. If safety needs are not met, the other needs will become secondary or non-existent.

The next step in the hierarchy is the need for *belonging*, which includes love, affection, and social support. If the needs for food, clothing, shelter, and safety are met, a sense of belonging will emerge. In succession is the need for *self-esteem*. According to Maslow, all people need or desire a strong sense of self-respect and a sense of esteem bestowed by others. Maslow divides this need into two subsidiary sets: the desire for strength, achievement, adequacy confidence, and independence, and the desire for recognition, attention, and appreciation from others (Maslow, 1973).

At the top of the Maslow's hierarchy is the need for *self-actualization*. This can be defined as the ability to become anything or everything that is capable of becoming. Maslow indicates from his theory when the basic necessities are met, other and higher needs emerge at once, and these then dominate the individual until they are met and higher needs emerge.

In 1964, Victor Vroom in his book *Work and Motivation* defines a theory on motivation that applies to the different aspects of the job. His basic premise is that people will work for economic need and motivation. Three additional terms are central in his theory: valence, motive, and outcome. *Valence* is the effective orientation toward a particular outcome. *Motive* is the preference for an outcome. *Outcomes* are a result of performance. Vroom believed that people desire to perform their jobs effectively because it will lead to a promotion (Vroom, 1964, p. 16).

In addition Vroom (1964) believes that individuals do well in their jobs even though there are no rewards. Vroom in his studies focused specifically on job satisfaction. He discovered that jobs in highly paid positions tend to offer greater variety of stimulation, higher status, and rewards. Vroom also discovered that participation in decision-making processes correlates

positively with job satisfaction. Vroom theorizes that workers report satisfaction in their jobs when related to pay, stimulation, supervision, promotion, social support, influence over job, and control of their environment. Workers that place high values on these outcomes were more likely to report job satisfaction (Vroom, 1964).

Frederick Herzberg's two-actor theory of motivation also made a significant impact to the literature on job satisfaction (Herzberg, Mausner, and Snyderman, 1959). He identified the motivating factors as the work itself, achievement, promotion, responsibility, advancement, recognition and status. In addition factors that determine motivation are described as interpersonal relations, job security, supervision, working conditions, salary, and benefits (1959).

Herzberg defies Maslow's theory, as every need is potentially motivating. Herzberg believes that only higher-order needs are truly motivating (1959). Motivation and job satisfaction arise from a different set of conditions; those related to the source of dissatisfaction. Individuals see job satisfaction as being related to success, challenge, achievement, and recognition. Dissatisfaction is related to salary, supervision, support, and working conditions.

In the field of education, researchers Sergiovanni, Metzcus, and Burden (1969), found that educators rated recognition, achievement, and advancement as major forces in motivation. They also reported that relationships with other teachers, peers, and administrators were important in reducing job dissatisfaction.

In 1982, two other researchers, Pastor and Eriandson, examined job satisfaction in terms of Maslow's theory of motivation. They interviewed 150 teachers from ten school districts to determine the teachers' needs or higher order or lower order, according to Maslow's theory. The researchers found that educators citing higher order need satisfaction tended to site higher levels of job satisfaction.

Teachers high in self-efficacy perceive teaching as a positive experience. Bandura (1997) defines self-efficacy as a fundamental factor for achieving performance; if you perceive you have the abilities you can complete the task. Based on Bandura's (1996) social cognitive framework, Lent and Brown (2006) proposed a theory of job satisfaction that combines many of these components into an empirical model. This model is based on the assumption that people are likely to be satisfied with their jobs when 5 situations (or conditions) exist; they feel competent to perform their work tasks or goals, they have favorable work conditions and they perceive they are making progress at personal goals, and receive social support from others. Lent and Brown (2006) also stated that job satisfaction is reciprocally related to general life satisfaction. Skaalvik and Skaalvik (2015) explored in a qualitative research study of thirty teachers, job satisfaction, work-related stress, consequences of stress, and coping strategies among Norwegian teachers. Those interviewed reported high job satisfaction, stress, and exhaustion from teaching. Of the thirty teachers of various ages and stages in their careers they all reported the same sources of job satisfaction and stress. The main source of stress was a high workload and severe time pressures at school that led to extreme mental and physical exhaustion.

Self-efficacy and teacher autonomy when studied separately are independently associated with engagement, job satisfaction, and emotional exhaustion (Skaalvik & Skaalvik, 2014). In this study by Skaalvik & Skaalvik, 2569 teachers were administered the Self-Efficacy, The Teacher Autonomy Scale, the Utrecht Work Engagement Scale, The Teacher Job Satisfaction Scale, and the Maslach Burnout Inventory. In addition to this study, Karabiyik and Korumaz (2014) used the Minnesota Satisfaction Questionnaire and the Self-efficacy Perception Instrument with 83 teachers. According to their results there was positive relationship between self-efficacy and job satisfaction.

In previous research by Skaalvik and Skaalvik (2011), a quantitative structural equation modeling system was used with 231 Norwegian teachers. Job satisfaction in this model was the strongest predictor of motivation to leave the teaching profession. In this model, teachers' engagement and job satisfaction required that the teacher's values and goals were congruent with the schools. If their goals and values were not the same the teacher was more motivated to leave the school and the profession.

Teacher job satisfaction has been studied in many countries. Badri, Ferrandino, Mohaidat, and Mourad (2013) using Lent and Brown's (2006) theory of job satisfaction, sampled 5,022 teachers in the United Arab Emirates. The outcome of this research supported Lent and Brown (2006) study of teacher job satisfaction. Teachers who are more satisfied with their jobs see their work environment as supportive, experience positive goal progress, and report high levels of self-efficacy.

In a large scale research study by Grissom, Harrington, and Nicholson-Crotty (2014), 140,000 teachers from multiple waves of the National Center for Educational Statistics Schools and Staffing Survey (SASS), teacher attitudes pre- and post NCLB were examined. The pre-NCLB time period compared with the post NCLB, teachers are working longer hours; perceive greater control in their classrooms, and more support among peers, administrators, and parents. The increase in the hours worked is consistent with the desirability of teaching as a profession in the post-NCLB era. This study indicates that teacher job satisfaction and commitment to the profession have increased since the passage of the NCLB, although the longer hours have increased emotional exhaustion and personal stress have decreased the number of teachers entering and staying in the field of education.

## **Summary**

As stated in this review of literature, the subject of hardiness and its relation to an early childhood teacher's stress, burnout, job satisfaction, and social support continue to be the source of much research. Teaching, specifically early childhood, as a profession has become highly stressful and teachers are leaving the profession within the first few years of teaching. As Maslow (1959) indicates, when the basic necessities are met, higher needs emerge and these then dominate the individual. Once a teacher has reached self-actualization they are more likely to indicate a hardy personality. Hardiness, and its relationship to stress, burnout, job satisfaction, and social support could predict the teacher's longevity in the profession. It is the intent of this research to examine the concept of hardiness and the relationship with stress, burnout, and social support among pre-kindergarten and kindergarten teachers.

## CHAPTER 3: METHODS

### **Introduction**

Teachers are leaving the profession at an alarming rate due to stress, burnout, and lack of social support. It has been suggested through the research of Kobasa (1979) that level of hardiness a teacher has might predict whether a teacher will stay in the field of teaching. This chapter focuses on the methodological procedures that were used in this study to determine if stress, social support, hardiness, and burnout have a statistically significant relationship with the age, education, and years of experience of a pre-kindergarten and kindergarten teacher. This chapter outlines the research design, research questions, and participants. Chapter 3 also addresses the data collection procedures and instrumentation as well as the analysis plan.

### **Research Design**

This study used quantitative research methods to study a sample of the early childhood population of teachers in order to generalize the results back to a larger population (Creswell, 2014). A correlational research design was used for this study. The researcher focused on examining the relationship between hardiness, stress, social support, burnout and teacher demographic information such as age, years of experience, and education in pre-kindergarten and kindergarten teachers. In this type of research, participant data are measured using surveys and the researcher is able to show associations between identified variables. According to Dillman (2014); surveys are useful and appropriate when a researcher wants to learn about individual attitudes, opinions, beliefs, and practices. They are an effective way to gather a large quantity of data in an efficient matter.

## Research Questions

In this study the researcher addressed the following research questions.

**Researcher's Question One:** Is there a statistically significant relationship between hardiness, stress, and burnout in Kindergarten and pre-kindergarten teachers? A Pearson Product moment correlation (Pearson's  $r$ ) was used to determine if a relationship exists.

**Researchers Hypothesis One:** A statistically significant relationship exists between hardiness, stress, and burnout in this sample of kindergarten and pre-kindergarten teachers. Teachers high in the hardiness personality will have lower levels of stress and burnout.

**Null Hypothesis One:** A statistically significant relationship does not exist between hardiness, and burnout in this sample of kindergarten and early childhood teachers. Teachers high in hardiness will experience stress and burnout.

**Research Question Two:** Is there a statistically significant relationship between social support and levels of hardiness in pre-kindergarten and kindergarten teachers? A Pearson's  $r$  is used to determine if there was a relationship between social support and the level of hardiness.

**Researcher's Hypothesis Two:** A statistically significant relationship exists between social support and the levels of hardiness.

**Null Hypothesis Two:** A statistically significant relationship does not exist between levels of social support and levels of hardiness.

**Research Question Three:** Are there statistically significant differences in hardiness, stress, burnout, and social support levels by teacher demographic characteristics (age, experience, and education)? An Analysis of Variance (ANOVA) was used to determine the differences between

hardiness, stress, burnout, and social support as dependent variables and demographic characteristics such as age, experience, and education as independent variables.

**Researcher's Hypothesis Three:** Hardiness, stress, burnout, and social support levels of teacher are not significantly different by demographic characteristics (age, experience, and education).

**Null Hypothesis Three:** Hardiness, stress, burnout, and social support levels of the teacher do not differ by demographic characteristics such as age, education, and experience.

### **Setting and Participants**

Convenience sampling (Hinkle, Jurs, & Wierma, 2003, p. 143) was used for pre-kindergarten and kindergarten teachers in Bayou City and the surrounding community. Convenience sampling is the process of including who-ever happens to be available or volunteers (Airasian, Gay, & Mills, 2009). Early childhood teachers are individuals that teach Pre-kindergarten and kindergarten age students in a public, non-public or for-profit centers or schools. The number of participants (sample size) required for this study was calculated using the *G-Power* computer program (UCLA, 2007). The statistical method of a Pearson product moment correlation (Hinkle, Jurs, & Wierma, 2003) was entered into the *G-Power* (UCLA) program as well as the power of .95 and the alpha level of .05. The program determined the group size (a minimum of 100 participants) was required for this study.

The sample was chosen from early childhood professionals in for-profit, non-profit, and a public school setting. The researcher distributed surveys at three early childhood conferences in December of 2015. In addition, principals and childcare center directors from Bayou City and the surrounding communities were asked to distribute the surveys. The principals and directors informed the teachers about the research and encouraged their participation. Teachers were



asked to complete the survey and return it in a sealed envelope with a prepaid self-addressed stamped envelope to the researcher. The researcher also picked up the surveys from the schools that chose not to mail them. Participants that returned their surveys were eligible to place their names in a drawing to receive a ten-dollar gift card. A total of 20 participants received a gift card. The researcher reviewed each survey to determine if all information on the survey was completed. Parts of the survey left blank could damage the results of the study. In order to prevent the lack of answers the researcher reminded the participants that all questions on the survey must be answered. Twenty participants from the conference in Bayou City returned the surveys with no questions answered. These surveys were considered null and not used in the calculations.

### **Instrumentation**

Four previously established surveys were used to measure the variables in this study. The *Dispositional Resilience Scale* (Bartone, 2007) is a 15-item Likert scale that measures three conceptually important facets of hardiness: commitment, control, and challenge. Guidelines for interpreted scores from the scale are presented in table 1. This scale has demonstrated appropriate criterion-related and predictive validity in several samples with respect to both health and performance under high stress conditions (Bartone, 2007). For the purpose of this project, scores on these measures are combined into a single total score.

Table 1. Subscales for the Dispositional Resilience Scale

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The total score indicates the level of hardiness a score of:

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**39 and above:** If your score is 39 or above, you are Very High in hardiness. People in this category nearly always see the world as interesting and meaningful, enjoy their daily activities, and believe they can influence people and things around them. They also adjust and adapt quickly to changing circumstances. Only about 7% of people are in this Very High category.

**34-38:** If your score is between 34 and 38, you are High in hardiness. People in this group generally see the world as interesting and meaningful, enjoy their daily activities, and believe they can influence people and things around them. They easily adjust to changing conditions and situations. About 24% of people fall into this High Hardiness category.

**28-33:** If your score is between 28 and 33, you are Average in hardiness. People in this category often see the world as interesting and meaningful, and enjoy their daily activities for the most part. They generally see themselves as able to influence things, but also see many situations as not under their control. Most people in this group tend to prefer predictability and stability in their daily lives, and do not seek out new experiences. Approximately 38% of people are in the Average category.

**22-27:** If your score is between 22 and 27, you are Low in hardiness. People in this group generally see the world as uninteresting, and their activities as not highly meaningful. They feel relatively powerless to change or influence what is going on around them, or how their lives are unfolding. They strongly prefer an environment of stability and predictability, even if this is somewhat boring. About 24% of adults are in this group.

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**21 and under:** If your score is 21 or less, you are Very Low in hardiness. People who score in this category see life as dull and uninteresting, and their own activities as not important or meaningful. They feel quite powerless to influence their own lives and events around them, and seek security above all else. About 7% of people fall into this group.

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Teacher stress level is measured with the *The Teacher Concerns Inventory* (TCI) (Fimian, 1985). The instrument consists of 49 items. The respondents are asked to rate five stress source factors, and five stress manifestation factors, using a scale from 1 to 5. The stress

source factors are: time management (TM), work-related stressors (WS), professional distress (PD), discipline and motivation (DM), and professional investment (PI). The stress manifestations are: emotional, fatigue, cardiovascular, gastronomical, and behavioral. This instrument has been used extensively for over 30 years and has good internal consistency, reliability (.93), and test-retest reliability of .67 to .99 (Fimian, 1984b, 1985, 1986). For the purposes of this study, scores on this measure are combined into a single measure of teacher stress level.

Teacher social support is measured using the *Social Support Questionnaire*, (SSQ6), (Sarason, et. al, 1983). This scale measures perceived social support as well as the number of individuals that provide social support to the individuals. It consists of six questions in which the participant describes the number of people that support them in their life and how satisfied they are with their support. The scale has a range of 1 (very dissatisfied) to 6 (very satisfied).

Teacher burnout is measured using the *Maslach Burnout Inventory Educators Survey* (MBI-ES) (Maslach, Jackson, & Schwab, 1986). It consists of 22 items divided into three subscales: emotional exhaustion (EE:9 items), depersonalization (DP: 5), and personal accomplishment (PA:8 items). The EE subscale describes feelings of being emotionally exhausted because work. The PA subscale items that describe beliefs of competence and successful achievement at work. The DP subscale describes detached and impersonal treatment of teachers. Each of the 22 items asks teachers to describe their feelings on a 7-point scale, ranging from never having those feelings to having those feelings a few times a week. Two studies substantiated the validity and reliability of the MBI-ES. Factor analytic studies by Iwancki and Schwab (1981), with 469 Massachusetts teachers, and by Gold (1984), with 462 California students, support the three-factor structure of the MBI-ES. In regard to reliability,

Iwancki and Schwab report Cronbach alpha estimates of .90 for Emotional Exhaustion, .76 for Depersonalization, and .76 for Personal Accomplishment, while Gold reports estimates of .88, .74, and .72, respectively.

## **Analysis**

The hardiness personality based on the literature by Kobasa (1979), suggests that the level of hardiness may be related to teacher stress, burnout, and social support. In this study the researcher used a Pearson  $r$  to determine the strength, if any, of the relationship of hardiness in pre-kindergarten and kindergarten teachers with stress, burnout, and social support. An Analysis of Variance (ANOVA) (Hinkle, et al, 2003), test was used to examine differences in hardiness, stress, burnout, and social support by the teacher demographic characteristics (age, experience, and education). The researcher used the *G Power* (2014) software program to determine the sample size necessary to achieve desired level of power. The strategy for conduction the analyses are as follows: exam data quality, check assumptions, check the functional form of the model and estimate model parameter.

The researcher completed a data-screening plan to ensure that the analysis is based on accurate data (Fidell & Tabachnick, 2013). The plan includes four parts: data quality, identification of outliers and influential observations, testing of assumptions and treatment of missing data. Data quality involves the inspection of the subset of variables by the researcher against the original records. This ensured that the information was entered into SPSS was accurate and represents the sample being surveyed. Assumptions of the procedures used are that the researcher had a large enough number of participants to minimize the standard error in the

estimates. The sampling error is reduced by increasing the sample size (denominator) or by minimizing the random errors in the data collection process.

*Outliers* are cases that can adversely impact the analysis (Hinkle, et al, 2003, p. 61-64). It is important as a researcher that we identify and appropriately respond to outliers. For these analysis we will use several influence statistics as a means of identifying outliers: 1) *Studentized Deleted Residuals*, is the quotient resulting from the division of a residual by an estimate of its standard deviation (Karpinski, 2007), 2) *Cooks Distance* (Cook,1979), measures the effect of deleting a given observation. Data points with large residuals (outliers) and/or high leverage may distort the outcome and accuracy of the analysis. Points with a large Cook's Distance are considered to merit closer examination in the analysis

Assumptions of linearity, homoscedasticity, and normality are checked (Fidell, & Tabachnick, 2013). Linearity will be checked using bivariate plots and plots of x against y. If a non-linear relationship was detected, the researcher will study relationship. Normality was assessed using the Shapiro-Wilks test and histograms on SPSS (Fidell, & Tabachnick). Homoscedasticity was assessed graphically by plotting residuals against predicted values (Fidell, & Tabachnick). In all instances if reasonable corrections are not possible, more robust procedures could be employed. There are two types errors are possible, Type I errors and Type II errors (Fidell & Tabachnick, 2013). Type I error: Supporting the alternate hypothesis when the null hypothesis is true. For example, the researcher may state that there is no relationship between stress, burnout, teacher satisfaction and hardiness when there is in fact a relationship. Type II error: Not supporting the alternate hypothesis when the alternate hypothesis is true. An example would be to state that there is a relationship when in fact there is no relationship.

## **Ethical Considerations**

As with other types of research, the researcher completed the approval process through the University's Institutional Review Board. In order to obtain approval to conduct a research study, the researcher gathered a brief description of the study, informed consent documentation, certification to work with human participants, the data security form, and copies of the instruments that were used in the research.

Once the researcher obtained approval for the study, the researcher contacted the authors of each of the surveys used to obtain permission to use the survey. In addition the research purchased licenses from Mind Garden, Inc., to use the *Maslach Burnout Inventory* (Maslach, 2011). Permission to use the *Social Support Questionnaire* (SSQ6) (Sarason, et al., 1983) was not needed because it is free and available online for research studies. The *Total Concerns Inventory* (Fimian, 1985) author was contacted and written permission to use the survey in research was obtained. The *Dispositional Resilience Scale* (Bartone, 2007) was purchased by the author to use for research purposes. The researcher obtained informed consent from each of the survey participants. This ensured the confidentiality, protection, and safety of the participants in the study. Each set of surveys was coded with a number and color that is only identifiable to the researcher. The surveys are kept in a locked file in the office of the researcher.

## **Summary**

Based on the review of literature, the focus of this chapter was to outline the methods of the proposed study. The research design, questions, surveys, and participants were all addressed. Using these methods the researcher determined if hardiness has a relationship to teacher stress, burnout, job satisfaction, and social support. The effect that hardiness had on stress, burnout,

social support levels of pre-kindergarten and kindergarten teachers determines further correlations and studies. The results of the statistical analysis for each research question are presented in chapter four.

## CHAPTER 4: RESEARCH FINDINGS

Chapter 4 presents the findings of the current research study; specifically, an examination of whether or not a statistically significant relationship exists between hardiness, stress, burnout, and demographic characteristics such as age, education, and years of teaching experience among preschool and kindergarten teachers. The first section will restate the proposed research questions and provide specific demographics of the sample. The second will provide descriptive statistics for the data set including the variability of scores, and the means for all instruments used. The final section of this chapter will present results for each of the three research questions examined.

### **Research Questions**

The purpose of this study was to determine if there was a relationship between hardiness, stress, burnout, social support, and demographic characteristic such as age, education, and experience, in pre-kindergarten and kindergarten teachers. In order to conduct this study, the following instruments were used; (1) *Maslach Burnout Inventory* (MBI) (Maslach & Jackson, 1986; Maslach, 2011), *The Teacher Concerns Inventory* (TCI) (Fimian, 1985), *Dispositional Resilience Scale* (DRS-15) (Bartone, 2007), and the *Social Support Questionnaire* (SSQ6) (Sarason, etl al., 1983). There were three hypotheses and three null hypotheses for this study.

### **Researcher's Hypothesis One**

There is a statistically significant relationship between hardiness as measured by the *DRS-15*, stress as measured by the *TCI*, and burnout as measured by the *MBI* subscales of emotional exhaustion, depersonalization, and personal accomplishment in kindergarten and pre-



kindergarten teachers. A Pearson's product moment correlation was used to determine the statistical significance of the relationship between these variables.

**Null Hypothesis One:** A statistically significant relationship does not exist between hardiness as measured by the *DRS-15*, stress measured by the *TCI*, and burnout as measured by the *MBI* subscales of emotional exhaustion, depersonalization, personal accomplishment, in this sample of pre-kindergarten teachers.

### **Researcher's Hypothesis Two**

There is a statistically significant relationship between social support as measured by the *SSQ6*, and levels of hardiness as measured by the *DRS-15* in pre-kindergarten and kindergarten teachers. A Pearson's product-moment correlation was used to determine the relationship between these variables.

**Null Hypothesis Two:** A statistically significant relationship does not exist between levels of social support as measured by the *SSQ6* and levels of hardiness as measured by the *DRS-15*.

### **Researcher's Hypothesis Three**

There are statistically significant differences in hardiness as measured by the *DRS-15*, stress, as measured by the *TCI*, *MBI*, *SSQ6*, and demographic characteristics such as age, education and experience. The researcher will use an ANOVA to compare the dependent variables; *DRS-15*, *TCI*, *MBI*, *SSQ6*, individually with the independent variables; age, education, and experience.

**Null Hypothesis Three:** There are no statistically significant differences in hardiness as measured by the *DRS-15*, stress, as measured by the *TCI*, *MBI*, *SSQ6*, and demographic characteristics such as age, education and experience.

## **Research Study Sample**

The participants in this research study were pre-kindergarten and kindergarten teachers from Bayou City, South Central US and the surrounding communities. They were employed in public schools, non-public schools, for-profit child-care centers and non-profit child-care centers. The researcher presented surveys at three early childhood conferences in the Bayou City Area in December of 2015. The research study was explained in detail to all participants. Pre-kindergarten and kindergarten teachers were asked to participate and to sign an informed consent. In addition surveys were distributed at four public schools, four non-profit child-care centers, four for profit child-care centers and four non-public schools. The researcher distributed 216 surveys. Of the 216 surveys, 196 were returned completed which yielded a 91% response rate. One child-care center returned the surveys and declined participation due to a change in ownership of the center. After completing the survey the participants had the option to enter their name and phone number in a drawing to win one of one of twenty \$10.00 gift cards. The researcher included 196 completed survey responses in the data analysis.

## **Participant Demographics**

Of the study participants, all identified themselves as female. In regards to reported levels of education, 48% held a high school diploma or Child Development Accreditation (CDA), 9.7 % held an Associates of Arts degree, 14.8 % held a Bachelor's degree and 27.6 held a Master's degree or above (Table 2).

Table 2. Education Frequencies

Education	Frequency	Percent	Valid Percent	Cumulative Percent
High School CDA	94	48.0	48.0	48.0
Associate	19	9.7	9.7	57.7
Bachelor	29	14.8	14.8	72.4
Masters and above	54	27.6	27.6	100.0
Total	196	100.0	100.0	

In regards to reported levels of age 16.3% were between the age of 15 and 25, 29.1% were between the age of 26 and 35, 40.8% were between the 36 and 45 years, and 13.8 were between the age 46-70 (Table 3).

Table 3. Age Frequencies

Age	Frequency	Percent	Valid Percent	Cumulative Percent
15-25	32	16.3	16.3	16.3
26-35	57	29.1	29.1	45.4
36-45	80	40.8	40.8	86.2
46-70	27	13.8	13.8	100.0
Total	196	100.0	100.0	

Participants were also asked to identify their years of teaching experience. 60.2% reported experience from 0-10 years, 27% reported experience from 11-20 years, 9.2% from 21-30 years of experience, and 3.6% from 31-50 years of experience (Table 4).

Table 4. Frequency of Experience

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
0-10 years	118	60.2	60.2	60.2
11-20 years	53	27.0	27.0	87.2
21-30 years	18	9.2	9.2	96.4
31-50 years	7	3.6	3.6	3.50
Total	196	100.0	100.0	

### Descriptive Statistics

Descriptive statistics are used to describe the data collected in the research study (Box, Hunter, & Hunter, 2005). Descriptive statistics assist the researcher in organizing the data. The descriptive statistics do not allow the researcher to make any conclusions regarding their hypotheses, but describe the data in a more meaningful way (Box, et. al). Table 5 depicts the descriptive statistics for the current study including the minimum, maximum scores, means, and standard deviation for each instrument used in the study. As noted above a total of 196 participants completed the surveys (N=196). The first subscale of the *MBI*, emotional exhaustion, resulted in a minimum score of 0 and a maximum score of 6 (range of 6,  $M=1.57$ ,  $SD = 1.499$ ). The mean of 1.57 indicates that on average, the participants were low in emotional exhaustion. The second subscale, depersonalization, resulted in a minimum score of 0 and maximum score of 6 (range of 6,  $M = .53$  and  $SD = 1.045$ ). The mean score of .53 indicates that the average participants felt very depersonalized. The last subscale, personal accomplishment, resulted in a minimum score of 0 and a maximum score of 6 (range of 6,  $M = 4.43$ ,  $SD = 1.516$ ). The mean of this scale, 4.43, indicated that the participants had an above

average feeling of personal accomplishment. The *Social Support scale*, *SSQ6* scores yielded a minimum of 0 and a maximum score of 6 (range of 6,  $M = 5.64$ ,  $SD = .807$ ). The mean score indicated that the average is a high level of social support for participants. The stress scale used in this study, the *TCI* resulted in a minimum score of 1 and a maximum score of 5 (range of 5,  $M = 2.35$ ,  $SD = .824$ ). The mean score indicated a moderate level of stress. The overall hardiness score resulted in a minimum of 0 and a maximum of 45 (range of 45,  $M = 31.62$ ,  $SD = 6.565$ ). The mean of 31.62 indicated that the participants see of the world as interesting and meaningful, and enjoy their daily activities for the most part. They generally see themselves as able to influence things, but also see many situations as not under their control. Most people in this group tend to prefer predictability and stability in their daily lives, and do not seek out new experiences.

Table 5. Descriptive Statistics for Surveys

	N	Minimum	Maximum	Mean	St.Deviation
EE	196	0	6	1.57	1.499
DP	196	0	6	.53	1.045
PA	196	0	6	4.43	1.516
Sat. of support	196	0	6	5.64	.807
Stress	196	1	5	2.35	.824
Hardiness	196	0	45	31.62	6.565
Valid N	196				

### **Researcher's Hypothesis One:**

There is a statistically significant relationship between hardiness as measured by the *DRS-15*, stress as measured by the *TCI*, and burnout as measured by the *MBI* subscales of emotional exhaustion, depersonalization and personal accomplishment in pre-kindergarten and kindergarten teachers. A Pearson's product-moment correlation will be used to determine if there is a significant relationship between hardiness, stress, and the three subscales of burnout, emotional exhaustion, depersonalization, and personal accomplishment.

**Null Hypothesis One:** A statistically significant relationship does not exist between hardiness as measured by the *DRS-15*, stress measured by the *TCI*, and burnout as measured by the *MBI* subscales of emotional exhaustion, depersonalization and personal accomplishment in this sample of kindergarten and early childhood teachers. The researcher would accept the null if  $p > .05$ . The researcher would reject the null if  $p < .05$ .

The researcher must first check for, outliers, normality, linearity, and homoscedasticity. A histogram is a bar graph of the raw data that creates a picture of the data distribution. Outliers are checked using a basic scatter plot graph to determine if any cases are outliers. Normality is checked using the Q-plot for linearity. Homoscedasticity basically means that the variances along the line of best fit remain similar as you move along the line. Histograms for each research variable were generated in *SPSS* and examined by the researcher.

The Pearson-product moment correlation coefficient is a measure of the strength of the direction that exists between two variables. Correlations according to Hinkle, et. al., (2005), can range from +1 to -1. A positive correlation notes that the phenomena are similar and a negative correlation notes that they are opposite. In a positive correlation as one variable increases so does the other. A negative correlation denotes that as one variable increases; the other variable

decreases. Pearson-product moment correlation attempts to draw a line of best fit through the data of the two variables. The correlation coefficient ( $r$ ) indicates how well the data points fit the model (Hinkle, et. al, 2003).

Table 6 depicts the Pearson's correlation and strength of the linear relationships between the survey instruments *MBI*, *DRS-15*, and *TCI*. *MBI* is measured across three subscales: *Emotional Exhaustion*, *Depersonalization*, and *Reduced Personal Accomplishment*. The responses range from never (0) to every day (6). *Emotional Exhaustion* is comprised of nine questions that explore the feelings of being overextended and exhausted by one's work. *Depersonalization* is composed of five questions that examine the incidence of negative and impersonal responses towards others at work. *Reduced Personal Accomplishment* is comprised of eight questions that describe a decline in an individual's feelings of competence and productivity at work. A statistically significant relationship between the three subscales of burnout with hardiness, and education. *The Teacher Concerns Inventory* is a 45 -item questionnaire, which identifies stress in the teacher's present position. There is a statistically significant relationship between stress, hardiness, and the two subscales of the *MBI*, emotional exhaustion and depersonalization. *Hardiness* is measured by the *DRS-15*. It is a 15-item questionnaire in which statements are positively and negatively skewed from 0 to 3. The hardiness total score represents an average of the teacher's personality of commitment, challenge, and control (hardy individuals are committed to what they do; believe they have control over causes and solutions of problems in their lives, and view challenges as opportunities). There is a statistically significant relationship between hardiness, burnout, and the teacher's stress; Burnout and stress decrease as hardiness increases. The *DRS-15*, which measures hardiness has a significant relationship with emotional exhaustion ( $p=.000$ ), depersonalization ( $p=.013$ ), and personal accomplishment ( $p=.001$ ) and

*TCI*, the measure for stress ( $p=.012$ ). *TCI*, the measure for stress, also has a significant relationship between emotional exhaustion ( $p=.000$ ) and depersonalization ( $p=.009$ ). The Pearson's correlation for the *DRS-15*, total hardiness score indicates that as the total score of hardiness goes up, the three subscales of the *MBI*, emotional exhaustion, depersonalization, and personal accomplishment. We also reject the null hypothesis for the relationship between the *DRS-15*, *MBI*, and *TCI*.

Table 6. Correlations

		EE	DEP	PA	Stress	DRS15	Exp	agtch	Ed
EE	Pearson	1	.346**	.020	.392**	-.288**	-.035	-.077	.152*
	Correlation								
	Sig. (2-tailed)		.000	.781	.000	.000		.624	.285
	N	196	196	196	196	196		196	196
DEP	Pearson	.346**	1	-.099	.186**	-.178*		-.060	-.046
	Correlation								.187**
	Sig. (2-tailed)	.000		.166	.009	.013		.405	.525
	N	196	196	196	196	196		196	196
PA	Pearson	.020	-.099	1	.002	.231**		.085	-.063
	Correlation								.162*
	Sig. (2-tailed)	.166	.166		.977	.001		.234	.380
	N	196	196	196	196	196		196	196



(Table 6. Continued)

		EE	DP		PA	Stress	DRS-15	EXP	AgtchED	
Stress	Pearson Correlation	.392**	.186**		.002	1	-.180*	-.133	-.104	.005
	Sig. (2-tailed)	.000	.009		.977		.012	.064	.149	.943
	N	196	196	196	196		196	196	196	196
DRS-15	Pearson Correlation	-.288*	-.178*		.231**	-.180*	1	-.028	.016	.017
	Sig. (2-tailed)	.000	.013		.001	.012		.700	.825	.813
	N	196	196	196	196		196	196	196	
Exp.	Pearson Correlation	-.035	-.060	.085		-.133	-.028	1	.570**	.039
	Sig. (2-tailed)	.624	.405	.234		.064	.700		.000	.591
	N	196	196	196		196	196		196	196
Age	Pearson Correlation	-.077	-.046	-.063		-.104	.016	.570**	1	-.002
	Sig. (2-tailed)	.285	.525	.380		.149	.825	.000		.982
	N	196	196	196		196	196	196		196
Ed.	Pearson Correlation	.152*	.187*	.162*		.005	-.017	.039	-.002	1
	Sig. (2-tailed)	.034	.009	.023		.943	.813	.591	.982	
	N	196	196	196		196	196	196	196	196

\*\*Correlation is significant at the .001 level (2-tailed) \*Correlation is significant at the .05 level

### **Researcher's Hypothesis Two:**

There is a statistically significant relationship between social support as measured by the *SSQ6*, and levels of hardiness as measured by the *DRS-15* in pre-kindergarten and kindergarten teachers. A Pearson's product-moment correlation was used to determine the relationship between these variables.

**Null Hypothesis Two:** A statistically significant relationship does not exist between levels of social support as measured by the *SSQ6* and levels of hardiness as measured by the *DRS-15*.

As with research question one, the researcher checked the data for outliers, normality, and linearity. The data depicted one case in which the participant answered zero. This case was determined an outlier. A Spearman's rank-order correlation is less sensitive to outliers and thus was used for this statistical measure.

As suggested in table 7, hardiness has a relationship with the number of support people ( $p=.034$ ). The more people that support the teacher the harder the individual, this number does not indicate the quality of the support of those individuals. There is no variance in the level of satisfaction with support people ( $p=.108$ ). This indicates that there is no relationship with the satisfaction of the support people ( $p>.05$ ). The satisfaction of the support people has no influence on the level of hardiness. A teacher could have many support people, but the relationship could be good or bad. In this case, the criteria were only partially met, we would accept the null hypothesis, and a relationship does not exist between hardiness and the level of social support.

Table 7. Correlation

			SSQS	SSQN	Hardiness
Spearman's rho	SSQS	Correlation Coefficient	1.000	.243**	.115
		Sig. (2-tailed)	.	.001	.108
		N	196	196	196
	SSQN	Correlation Coefficient	.243**	1.000	.151*
		Sig. (2-tailed)	.001	.	.034
		N	196	196	196
	Hardiness	Correlation Coefficient	.115	.151*	1.000
		Sig. (2-tailed)	.108	.034	
		N	196	196	196

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### Researcher's Hypothesis Three:

There are statistically significant differences in hardiness as measured by the *DRS-15*, stress, as measured by the *TCI*, *MBI*, *SSQ6*, and demographic characteristics such as age, education and experience. The researcher will use an ANOVA to compare the dependent variables; *DRS-15*, *TCI*, *MBI*, *SSQ6*, individually with the independent variables; age, education, and experience.

**Null Hypothesis Three:** There are no statistically significant differences in hardiness as measured by the *DRS-15*, stress, as measured by the *TCI*, *MBI*, *SSQ6*, and demographic characteristics such as age, education and experience. The researcher will use an ANOVA to compare the dependent variables; *DRS-15*, *TCI*, *MBI*, and *SSQ6* individually to each of the independent variables; age, education, and experience.

The researcher checked for Normality in each combination of dependent and independent variables. The Komogorov-Smirnov and Shapiro-Wilk's test of normality were used. The assumption of homogeneity was checked with the Levene's statistical measure. To test the null hypothesis of equal mean outcomes for the different levels of the independent variables, the F statistic is used. A .05 significance level will be used. In instances in which the assumption of homogeneity of variance is problematic, the more robust Brown-Forsythe or Welch F tests will be used (Table 8)

Table 8. Test for Normality DRS-15 and age

	agtch	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Hardiness	1	.215	3	.001	.859	32	.001
	2	.201	57	.000	.893	57	.000
	3	.188	80	.000	.899	80	.000
	4	.257	27	.000	.898	27	.012

Table 9 suggests that there is no difference in the age of the teacher and the level of hardiness as reflected in the F of .509 and the related p value of .677. Individuals could be hardy at any age, age does not distinguish the personality type of hardiness

Table 9. ANOVA DRS-15 and age

	Sum of Square	Df	Mean Square	F	Sig.
Between Groups	1.798	3	.599	.509	.677
Within Groups	226.324	192	1.179		
Total	228.122		195		

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Table 10 the significance is .032 which indicates homogeneity is met.

Table 10. Levene Statistic DRS-15 and age

Levene Statistic	df1	df2	Sig.
3.000	3	192	.032

The more robust test (Table 11) also indicates that homogeneity is present.

Table 11. Robust Test for Significance

	Statistic <sup>a</sup>	df1df2	Sig.
Welch	.547	3 81.180	.652
Brown-Forsythe	.556	3 159.725	.645

Table 12 suggests that we reject the null hypothesis that normality is not met  $P < .05$ .

Table 12. Test for Normality

		Kolmogorov-Smirnov <sup>a</sup>		Shapiro-Wilk			
	Agth	Statistic	Df	Sig.	Statistic	Df	Sig.
Stress							
			32		.788	32	.000
	1	.289		.000			
	2	.259	57	.000	.795	57	.000
	3	.250	80	.000	.846	80	.000
	4	.256	27	.000	.794	27	.000

Table 13 suggests that there is a difference in stress and the age of the teachers ( $p=.000$ ) and the  $f>1$  so this significance is not by chance. Table 14 indicates that there is a difference.

Table 13. ANOVA Stress and Age of Teachers

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.907	3	4.636	7.511	.000
Within Groups	118.501	192	.617		
Total	132.408	195			

Table 14 indicates that homogeneity is not met. There are differences.

Table 14. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.709	3	192	.167

Table 15 suggests that we reject the null that the data is not normal for all three previous tables.  $P < .05$  in Depersonalization, Personal Accomplishment and Emotional Exhaustion this indicates that normality holds.

Table 15. Tests of Normality MBI and the Age of the Teacher

	Agtch	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
DP	1	.417	32	.000	.638	32	.000
	2	.390	57	.000	.503	57	.000
	3	.391	80	.000	.682	80	.000
	4	.529	27	.000	.293	27	.000
PA	1	.213	32	.001	.878	32	.002
	2	.319	57	.000	.718	57	.000
	3	.228	80	.000	.817	80	.000
	4	.318	27	.000	.749	27	.000
EE	1	.141	32	.105	.931	32	.041
	2	.253	57	.000	.822	57	.000
	3	.166	80	.000	.895	80	.000
	4	.266	27	.000	.773	27	.000

Table 16 indicates that emotional exhaustion  $p=.000$  and personal accomplishment  $p=.028$  and  $p=.028$  suggests there is a difference in age. A Brown-Forsythe and Welch test was used to test equal means when our equal variances did not hold in Table 16. However the robust test indicates that there are no differences in personal accomplishment ( $p= .054$ ) and age (Table 16). We reject the null hypothesis for the subscales of emotional exhaustion and depersonalization and age. We accept the null that that there are no differences between personal accomplishment and age.

Table 16. ANOVA of MBI and Age

		Sum of Squares	Df	Mean Square	F	Sig.
EE	Between Groups	40.351	3	13.450	6.492	.000
	Within Groups	397.787	192	2.072		
	Total	438.138	195			
DP	Between Groups	6.778	3	2.259	2.105	.101
	Within Groups	206.094	192	1.073		
	Total	212.872	195			
PA	Between Groups	20.623	3	6.874	3.087	.028
	Within Groups	427.514	192	2.227		
	Total	448.138	195			

Table 17 test for homogeneity not met. Must refer to Brown-Forsythe and Welch's test for robust measures. This test will be used to test equal means when equal variances do not hold.



Table 17. Levene's Test for Homogeneity MBI and Age

	Levene Statistic	df1	df2	Sig.
EE	3.514	3	192	.016
DP	7.365	3	192	.000
PA	7.600	3	192	.000

Table 18 suggests that there are significant differences in burnout subscales of emotional exhaustion ( $p = .00$ ) and depersonalization ( $p = .01$ ) with age.

Table 18. Brown-Forsythe and Welch Robust Tests if Equality of Means

		Statistic <sup>a</sup>	df1	df2	Sig.
EE	Welch	6.905	3	79.158	.000
	Brown-Forsythe	6.900	3	141.844	.000
DP	Welch	5.908	3	93.770	.001
	Brown-Forsythe	2.725	3	143.834	.046
PA	Welch	2.656	3	77.002	.054
	Brown-Forsythe	2.639	3	74.043	.056

Accept the null that the distribution in age category one is not normal (Table 19). A Kruskal-Wallis test for non-parametric measures will be run (Table 20).

Table 19 Normality of SSQ6 and Ag

	Agтч	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
SSQN	1	.188	32	.006	.938	32	.064
	2	.200	57	.000	.933	57	.004
	3	.135	80	.001	.951	80	.004
	4	.191	27	.013	.850	27	.001
SSQS	1	.421	32	.000	.405	32	.000
	2	.443	57	.000	.557	57	.000
	3	.451	80	.000	.554	80	.000
	4	.501	27	.000	.442	27	.000

Table 20. Ranks Normality for Kruskal-Wallis

	Agтч	N	Mean Rank
SSQN	1	32	122.59
	2	57	83.56
	3	80	100.34
	4	27	96.02
	Total	196	
SSQN	1	32	99.39
	2	57	96.57
	3	80	97.38
	4	27	104.83
	Total	196	

Table 21 suggests that there is a significance difference in the age and in the number of people at .018 which is  $<.05$  with a mean for the number of people that support the teacher from 122.96.

We reject the null for age and the number of support people. There are no significant differences in age and the satisfaction of the teacher with the support people. The null is accepted that there are no significant differences in age and the satisfaction of the teacher with the support people.

Table 21. Kruskal-Wallis Test

	SSQN	SSQS
Chi-Square	10.055	.832
Df	3	3
Asymp. Sig.	.018	.842

Table 22 suggests that we reject the null that data is not normal. Normality exists in all education levels ( $p < .05$ )

Table 22. Tests of Normality DRS-15 and Education

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Education	Statistic	Df	Sig.	Statistic	Df	Sig.
Hardiness	High School CDA	.207	94	.000	.897	94	.000
	Associate	.408	19	.000	.702	19	.000
	Bachelor	.245	29	.000	.870	29	.002
	Masters and above	.196	54	.000	.897	54	.000

The ANOVA (Table 23) suggests that  $p = .029$  which indicates there may be differences if the tests for homogeneity hold.

There is a difference in the education of the teacher and the level of hardiness ( $p = .029$  which is  $< .05$ ). We reject the null hypothesis. The F ratio is 3.083 that are greater than 1 that indicates this is more than just a chance.

Table 24. ANOVA DRS-15 and Education

	SumSQ	Df	Mean Square	F	Sig.
Between Groups	10.483	3	3.494	3.083	.029
Within Groups	217.640	192	1.134		
Total	228.122	195			

Table 25 the assumption of homogeneity is met if greater than .05.

Table 25 Test of Homogeneity

Levene Statistic	df1	df2	Sig.
1.488	3	192	.219

Reject the null hypothesis that normality is not met. Normality is met if  $P < .05$  which is indicated in table 26.

Table 26. Tests for Normality TCI and Education

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Education	Statistic	Df	Sig.	Statistic	Df	Sig.
Factors causing stress in teachers?	High School CDA	.236	94	.000	.857	94	.000
	Associate	.324	19	.000	.834	19	.004
	Bachelor	.258	29	.000	.874	29	.002
	Masters and above	.286	54	.000	.831	54	.000

There are no differences in education and the levels of stress ( $p = .384$ ).  $F = 1.021$  which is greater than one (Table 27).

Table 27. Anova TCI and Education

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.080	3	.693	1.021	.384
Within Groups	130.329	192	.679		
Total	132.408	195			

A Brown-Forsythe and Welch test is portrayed in table 28. The researcher used this test to test the hypothesis since the F was only slightly greater than 1. Table 29 suggests that we accept the null hypothesis there are no differences in stress and education ( $p = .457$  which is  $> .05$

Table 28. Robust Test TCI and Education

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	.879	3	60.231	.457
Brown-Forsythe	1.041	3	111.286	.378

Homogeneity is met greater if  $p > .05$ ,  $p = .420$ .

Table 29. Tests for Homogeneity

Levene Statistic	df1	df2	Sig.
.946	3	192	.420

Table 30 suggests that reject the null hypothesis that normality is not met If  $P < .05$  normality is met.

Table 30. Tests of Normality MBI and Education

		Kolmogorov-Smirnov <sup>a</sup> Shapiro-Wilk					
	Education	Statistic	Df	Sig.	Statistic	Df	Sig.
EE	High School CDA	.245	94	.000	.823	94	.000
	Associate	.196	19	.052	.860	19	.010
	Bachelor	.180	29	.018	.906	29	.014
	Masters and above	.205	54	.000	.910	54	.001
DP	High School CDA	.490	94	.000	.468	94	.000

(Table30 Continued)

	Education	Statistic	Df	Sig.	Statistic	Df	Sig.
	Associate	.303	19	.000	.738	19	.000
	Bachelor	.270	29	.000	.809	29	.000
	Masters and above	.407	54	.000	.554	54	.000
PA	High School CDA	.277	94	.000	.803	94	.000
	Associate	.266	19	.001	.722	19	.000
	Bachelor	.302	29	.000	.824	29	.000
	Masters and above	.278	54	.000	.788	54	.000

The ANOVA suggests that there are no differences between education and emotional exhaustion ( $p=.043$ ) and depersonalization ( $p=.043$ ), but there are no differences in personal accomplishment ( $p=.056$ ).

Table 31. ANOVA MBI and Education

		Sum of Squares	Df	Mean Square	F	Sig.
EE	Between Groups	18.109	3	6.036	2.759	.043
	Within Groups	420.028	192	2.188		
	Total	438.138	195			
DP	Between Groups	8.806	3	2.935	2.762	.043
	Within Groups	204.066	192	1.063		
	Total	212.872	195			
PA	Between Groups	17.232	3	5.744	2.559	.056
	Within Groups	430.905	192	2.244		
	Total	448.138	195			

Table 32 suggests that homogeneity is not met on all subscales must refer to Brown-Forsythe and Welch robust test when equal means when equal measures do not hold.

Table 32. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
EE	.555	3	192	.645
DP	6.367	3	192	.000
PA	3.198	3	192	.025

There is a significant difference in the subscales of depersonalization ( $p=.022$ ) and personal accomplishment ( $p=.034$ ) with educational levels (Table 33). We reject the null for depersonalization and personal accomplishment with educational levels. Although it looks like a significant difference in emotional exhaustion one must refer to the more robust Welch test for significance ( $p=.071$ ). We accept the null that there are no differences in emotional exhaustion and education levels.

Table 33. Robust test

		Statistic <sup>a</sup>	df1	df2	Sig.
EE	Welch	2.464	3	58.937	.071
	Brown-Forsythe	2.695	3	100.345	.050
DP	Welch	3.471	3	57.518	.022
	Brown-Forsythe	2.778	3	116.179	.044
PA	Welch	3.075	3	65.188	.034
	Brown-Forsythe	3.313	3	121.256	.022

Normality is not met with the education and the number of people that support the teacher (Table 34), therefore a non-parametric Kruskal-Wallis test was used.



Table 34. Tests of Normality SSQ6 and Education

	Education	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
SSQN	High School CDA	.152	94	.000	.929	94	.000
	Associate	.233	19	.008	.877	19	.019
	Bachelor	.148	29	.107	.948	29	.166
	Masters and above	.166	54	.001	.933	54	.005
SSQS	High School CDA	.467	94	.000	.403	94	.000
	Associate	.505	19	.000	.445	19	.000
	Bachelor	.492	29	.000	.483	29	.000
	Masters and above	.379	54	.000	.693	54	.000

Test is met if greater than .05 ( $p=.742$  and  $.829$ ) (Table 35).

Table 35. Test of Homogeneity of Variances SSQ6 and Education

	Levene Statistic	df1	df2	Sig.
SSQN	.416	3	192	.742
SSQS	.295	3	192	.829

One would refer to the Welch test because it is a more robust test than the Brown-Forsythe test (Table 36).

Table 36. Robust Tests of Equality of Means SSQ6 and Education

		Statistic <sup>a</sup>	df1	df2	Sig.
Satisfaction of	Welch	.079	3	73.330	.971
support people	Brown-Forsythe	.082	3	101.889	.969
Number of people	Welch	2.993	3	74.327	.036
that support the	Brown-Forsythe	2.503	3	105.062	.063
teacher					

There is not statistically significant difference in the group .31 which is  $>.05$ . The means range from 98-103 for the number of people that support the teacher. The teacher's satisfaction of the support people is significant at .039 which is  $<.05$ . Which indicates there is a difference with education and the perceived satisfaction of the teacher. There are differences in education and satisfaction of support people. We reject the null for *SSQ6* (satisfaction of support people) and education and accept the null ( $p=.312$ ) *SSQ6* (Number of people that support the teacher) and education (Table 37).

Table 37. Kruskal-Wallis

	SSQN	SSQS
Chi-Square	3.567	8.381
Df	3	3
Asymp. Sig.	.312	.039

There are no differences in social support and education (Table 38). Once again the F was greater than 1 so the Brown Forsythe test was run.

Table 38. Anova SSQ6 and Education

		Sum of Squares	Df	Mean Square	F	Sig.
SSQN	Between Groups	47.277	3	15.759	2.799	.041
	Within Groups	1081.070	192	5.631		
	Total	1128.347	195			
SSQS	Between Groups	.188	3	.063	.095	.963
	Within Groups	126.812	192	.660		
	Total	127.000	195			

Table 39 indicates that there is no difference in the number or satisfaction of support people and education.

Table 39.. Robust Tests of Equality of Means SSQ6 and Education

		Statistic <sup>a</sup>	df1	df2	Sig.
SSQS	Welch	2.337	3	73.332	.081
	Brown-Forsythe	1.566	3	132.734	.201
SSQN	Welch	1.137	3	61.007	.341
	Brown-Forsythe	1.002	3	114.810	.395

Reject the null that the data is not normal (Table 40). Data is normal

$p < .05$ .

Table 40. Levene Test

	Levene Statistic	df1	df2	Sig.
SSQN	.333	3	192	.801
SSQS	2.141	3	192	.096

Table 41 indicates that there is a difference in hardiness and experience.

Table 41. Tests of Normality DRS-15 and Experience

	Years with children	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Hardiness	0-10 years	.192	118	.000	.895	118	.000
	11-20 years	.195	53	.000	.887	53	.000
	21-30 years	.232	18	.011	.893	18	.043
	30-50 years	.352	7	.009	.760	7	.016

Table 42 indicates that there are differences in Hardiness and Experience.

Table 42. ANOVA DRS-15 and Experience

	Sum of				
	Squares	Df	Mean Square	F	Sig.
Between Groups	1.668	3	.556	.471	.703
Within Groups	226.454	192	1.179		
Total	228.122	195			

There is no difference in hardness with the level of experience of the teacher ( $p=.239$ )

Table 43. Test for Homogeneity

Levene			
Statistic	df1	df2	Sig.
1.418	3	192	.239

Reject the null that data is not normal. Data is normal  $p < .05$  (Table 44).

Table 44. Tests of Normality TCI and Experience

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	years with children	Statistic	Df	Sig.	Statistic	Df	Sig.
Stress	0-10 years	.258	118	.000	.834	118	.000
	11-20 years	.274	53	.000	.836	53	.000
	21-30 years	.246	18	.005	.869	18	.017
	30-50 years	.304	7	.050	.781	7	.026

There are no differences in the level of stress and the years of experience ( $p=.279$ ) (Table 45)

Table 45 ANOVA TCI and Experience

	Sum of				
	Squares	Df	Mean Square	F	Sig.
Between Groups	2.618	3	.873	1.291	.279
Within Groups	129.791	192	.676		
Total	132.408	195			

Table 46 indicates that there are no differences in the years of experience and the stress of the teacher. We accept the null hypothesis.

Table 46. Robust test for TCI and Experience

	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	.850	3	22.087	.481
Brown-Forsythe	.869	3	31.980	.468

Homogeneity is met if greater than .05 ( $p=.27$ ) (Table 47)

Table 47. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.304	3	192	.275

Reject the null that data is not normal. The data is normal with  $p<.05$  (Table 48).

Table 48. Normality for MBI and Experience

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	years with children	Statistic	Df	Sig.	Statistic	Df	Sig.
DP	0-10 years	.391	118	.000	.550	118	.000
	11-20 years	.414	53	.000	.633	53	.000
	21-30 years	.464	18	.000	.544	18	.000
	31-50 years	.504	7	.000	.453	7	.000
PA	0-10 years	.274	118	.000	.757	118	.000
	11-20 years	.220	53	.000	.853	53	.000
	21-30 years	.342	18	.000	.579	18	.000
	31-50 years	.323	7	.026	.734	7	.009
EE	0-10 years	.180	118	.000	.882	118	.000
	11-20 years	.212	53	.000	.864	53	.000
	21-30 years	.308	18	.000	.786	18	.001
	31-50 years	.236	7	.200*	.806	7	.047

There are no differences with experience and the burnout subscales of emotional exhaustion ( $p=.920$ ), depersonalization ( $p=.773$ ), and personal accomplishment ( $p=.196$ ). We accept the null hypothesis (Table 49).

Table 49 ANOVA MBI and Experience

		Sum of Squares	Df	Mean Square	F	Sig.
EE	Between Groups	1.125	3	.375	.165	.920
	Within Groups	437.013	192	2.276		
	Total	438.138	195			
DP	Between Groups	1.230	3	.410	.372	.773
	Within Groups	211.642	192	1.102		

(Table 49 Continued)

		Sum of Squares	DF	Mean	F	Sig.
	Total	212.872	195			
PA	Between Groups	10.783	3	3.594	1.578	.196
	Within Groups	437.355	192	2.278		
	Total	448.138	195			

Test for Homogeneity is met  $p > .05$  (Table 50).

Table 50. Test of Homogeneity of Variances MBI and Experience

	Levene Statistic	df1	df2	Sig.
EE	.429	3	192	.732
DP	1.008	3	192	.390
PA	.667	3	192	.573

Table 51 confirms that homogeneity is met.



Table 51. Robust test

		Statistic <sup>a</sup>	df1	df2	Sig.
EE	Welch	.152	3	22.856	.928
	Brown-Forsythe	.144	3	30.529	.933
DP	Welch	.664	3	25.338	.582
	Brown-Forsythe	.559	3	66.038	.644
PA	Welch	1.654	3	22.768	.205
	Brown-Forsythe	1.264	3	23.414	.310

Accept the null that there is not a normal distribution between the 21-30 year olds. A Kruskal-Wallis non-parametric test for normality must be run (Table 52).

Table 52. Test of Normality SSQ6 and Experience

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	years with children	Statistic	Df	Sig.	Statistic	Df	Sig.
SSQN	0-10 years	.117	118	.000	.960	118	.001
	11-20 years	.209	53	.000	.903	53	.000
	21-30 years	.216	18	.026	.919	18	.124
	31-50 years	.349	7	.010	.757	7	.015
SSQS	0-10 years	.431	118	.000	.494	118	.000
	11-20 years	.448	53	.000	.569	53	.000
	21-30 years	.523	18	.000	.373	18	.000
	31-50 years	.504	7	.000	.453	7	.000

Data in table 52 suggests that there is no significant difference with experience and the number of people ( $p=.32$ ) that support the teacher ( $p=.720$ ) and the level of their perceived support with experience. Accept the null hypothesis the data does not demonstrate normality.

Table 53. Test for Non-Parametric Measure

	SSQN	SSQS
Chi-Square	3.503	1.338
Df	3	3
Asymp. Sig.	.320	.720

There were no differences in social support and the years of a teacher's experience (Table 54). The F was greater than 1 so a Brown-Forsythe and Welch test was run. There are no differences in social support and years of experience. Accept the null hypothesis. Table 54 suggests that  $p>.05$ , there are no differences in social support and years of experience.

Table 54. Anova SSQ6 and Experience

		Sum of Squares	df	Mean Square	F	Sig.
SSQN	Between Groups	25.409	3	8.470	1.474	.223
	Within Groups	1102.938	192	5.744		
	Total	1128.347	195			
SSQS	Between Groups	.393	3	.131	.199	.897
	Within Groups	126.607	192	.659		
	Total	127.000	195			

Table 55 using the more robust measures indicates that there are no differences in social support and the years of experience or social support and the number of people that support the teachers.

Table 55. Robust Brown-Forsythe and Welch test SSQ6 and Experience

		Statistic <sup>a</sup>	df1	df2	Sig.
SSQS	Welch	.261	3	23.216	.853
	Brown-Forsythe	.172	3	19.368	.914
SSQN	Welch	.734	3	23.297	.542
	Brown-Forsythe	.877	3	12.222	.480

Homogeneity no met for number of people that support the teacher. The researcher must refer to Brown-Forsythe and Welch for significance. It is met for the satisfaction of the support people ( $p > .05$ ) (Table 56).

Table 56. Tests for Homogeneity of Variances SSQ6 and Experience

	Levene Statistic	df1	df2	Sig.
SSQN	4.280	3	192	.006
SSQS	.691	3	192	.558

### Summary

The purpose of this study was to determine the relationship between hardiness, stress, burnout, social support, and demographic characteristics such as the age, education, and years of experience of the teacher and to determine the differences of each of these variables as well as determine if the level of hardiness predicts burnout. Surveys were distributed to pre-

kindergarten and kindergarten teachers in Bayou City, South Central US and the surrounding area. The analyzed results demonstrate that there is a statistically significant relationship between the three subscales of burnout with hardiness, age, and education. A statistically significant relationship of two of the subscales of the burnout inventory exists with stress, emotional exhaustion, and there is a statistically significant relationship between hardiness, burnout, and the teacher's stress; Burnout and stress decrease as hardiness increases. The *MBI* depicts a statistically significant relationship with education. Emotional exhaustion, depersonalization, personal accomplishment has a statistically significant relationship education. The *DRS-15*, which measures hardiness, has a statistically significant relationship with emotional exhaustion, depersonalization, and personal accomplishment, and Teacher stress as measured by the *TCI*. *TCI* also has a statistically significant relationship between emotional exhaustion and depersonalization (.009). Age also has a significant relationship with experience. Hardiness has a statistically significant relationship with the number of support people, but does not have any relationship with the satisfaction of the support people. The more support people the harder the individual; although this research indicates that there is no relationship with the satisfaction of the support people ( $p>.05$ ). The researcher used an ANOVA to determine the differences in the dependent variables of hardiness, stress, social support, and burnout and the demographic characteristics (independent variables) of age, education, and experience. These differences will be explained in Chapter Five. Further examination will be discussed in Chapter five.

## CHAPTER 5: DISCUSSION AND IMPLICATIONS

In this chapter, the researcher will summarize and interpret the results of the investigation of the relationship between stress, burnout, hardiness, and social support in pre-kindergarten and kindergarten teachers from private, public, for-profit, and non-profit schools whom are employed in the Bayou City and surrounding communities. This chapter provides the discussion of results, organized by research question, the limitations of the study and implications of this research on future studies.

### **Discussion of Results**

#### **Descriptive**

The descriptive analysis of 196 pre-kindergarten and kindergarten teachers that completed the survey indicated that all participants were female. The reported levels of education were 48% held a high school diploma or CDA, 9.7 % held an Associates of Arts degree, 14.8% held a Bachelor's degree, and 27.6% held a Master's degree and above. Nationally, teachers of pre-kindergarten and kindergarten; 42% have a high school diploma, 39% some college (including Associates Degree) and 19% a Bachelor's degree or more (Economic Policy Institute, 2005; U.S. Department of Education Center for Education Statistics, 2008). Participants in the present study were more educated (42.4% having a Bachelor's or above) than the national average (19%). Comparing the education of the participants (see Table 2), to the 2008 statistics from the U.S. Department of Education study suggests that teachers in the pre-kindergarten and kindergarten center-based programs in the South Central United States have an advanced degree, higher than the national average.

The average age reported for this current study was 38 years old. Nationally, the average age of the teachers is 41 (U.S. Department of Education Center for Education Statistics, 2008). The average years of experience for those pre-kindergarten and kindergarten teachers participating in this current survey is 11.43 years. Nationally, the average years of experience for pre-kindergarten and kindergarten is 9 years (U.S. Department of Education Institute of Education Statistics, 2013). Those teachers surveyed from the South Central United States were relatively the same age as the national sample, but averaged more years of experience than those nationally. Comparing the results from the current study to those nationally, over 50% of the teachers do not stay in the teaching profession for over 10 years.

### **The Relationship Between Hardiness, Burnout and Stress**

The findings of this research study suggest that there is a statistically significant relationship between hardiness, burnout (and the three subscales of emotional exhaustion, depersonalization, personal accomplishment) and stress. Hardiness is a belief in which individuals are committed to what they do; believe they have control over the causes and solutions of the problem and view life changes as challenges (Maddi, 2011).

### **Burnout**

The findings in this study suggest that as hardiness increases, the burnout subscales of emotional exhaustion and depersonalization decrease. In addition, a statistically significant relationship exists between stress and the two subscales of burnout, emotional exhaustion, depersonalization, and education and emotional exhaustion, depersonalization and personal accomplishment.

## **Stress**

Stress is a process that involves the perception of an imbalance between environmental demands and the teacher's ability to meet those demands (Kyriacou & Sutcliffe, 1978). The findings in this study suggest that as hardiness increased, stress decreased. Teachers that have higher levels of the hardiness personality (Maddi, 2011) will have the courage to become involved with others (commitment), perceive that they have the ability to influence what is going on around them (control), and learn from both the positive and negative situations (challenge). A hardy personality is an effective tool when mediating stress and burnout (Maddi & Kobasa, 1984); therefore, administrators should cultivate hardy personality characteristics in teachers.

## **The Relationship Between Hardiness and Social Support**

This study indicated that there was only a partial relationship between hardiness and the level of social support as suggested by the teachers in this study. That is of the two subscales of social support only the number of support people was significant. There was a statistically significant relationship between hardiness and the number of people that support the teacher ( $p=.004$ ). As hardiness increased, the number of people that supported the teacher also increased ( $r=.203$ ). However, there was no relationship between the level of hardiness and the *satisfaction* of the people that supported the teacher. This study suggested that the more people one had for social support, the higher level of hardiness they reported. Social support, according to the early research on hardiness, indicated that social support could be effective in mediating stress (Kobasa, 1982; Levine, Basham, & Sarrason, 1983). Other research (Eschelman, et al., 2010) has suggested that hardiness was positively related to personality traits that protect people from stress and that a high hardiness level was indicative of a strong social support system. The present research study suggests that hardiness increases by the number of individuals that

support the teacher; however, the relationship of hardiness and social support did not suggest that the teachers perceive these people to be helpful and satisfying. This suggests that administrators should cultivate opportunities for teachers to form relationships, and that teachers should make time to invest in relationships with colleagues.

### **The Differences in Hardiness, Stress, Social Support and Burnout and Demographics**

The present study used an ANOVA statistical method to look at the differences of the dependent variables of hardiness, stress, social support and burnout with demographic independent variables (age, education, and experience). Given the current climate of high levels of pre-school and kindergarten teacher attrition, it is critically important that we understand what keeps early career teachers in the profession. Early childhood education research is lacking relation to preschool teacher job satisfaction and retention (Hall-Kenyon et al., 2013). Hall-Kenyon et al.'s (2013 review on preschool teachers' well-being found that the majority of the research focuses on preschool teachers' salary and education levels; therefore, they argue that more research is needed beyond these issues, emphasizing the need to understand the mechanisms behind pre-school and kindergarten teachers' job satisfaction and retention. By looking at the individual differences of each age, education, and experience with hardiness, stress, social support, and burnout, the researcher could determine demographics that are necessary when hiring or training pre-service teachers to improve teacher retention and job satisfaction. The following paragraphs describe in detail the differences in hardiness, stress, social support and burnout with age, education, and experience.



## **Is Hardiness a Significant Predictor of Teacher Burnout**

The present study indicated that there were no difference in hardiness and the age of the teacher (Table 9) or between hardiness and experience (Table 37). However, there were differences in hardiness and the level of the teacher's education (Table 20). The hardiness construct (Kobasa, 1979) has three separate personality traits; a personal control over stressful event's in one's life, a deep sense of involvement, commitment, a purpose in daily life; and adapting to or having flexibility in one's environment to see these changes as challenges and opportunities for personal growth. This present study suggests that having hardiness personality characteristics may not predict how long teachers stay in their professions. While there is other literature that has found that hardy personality characteristics mediate stress and burnout (Maddi & Kobasa, 1984); there may be other factors, such as negative political climate, poor work environments, lack of parental support and low pay, that cause teachers to leave the profession (Schoenfeld, 2001; Travers & Cooper, 1996).

## **Stress**

There is a statistically significant difference in the stress and the age of the teachers (Table 13). The age of the teacher may predict their stress levels. Further research is necessary determine if age level could predict stress. However, there were no differences in stress and education in this sample (Table 25, which is in contrast to other literature (Boghean & Clipa, 2015), which stated that teachers with more resources were less stressed. Specifically, pre-kindergarten and kindergarten teachers that used developmentally appropriate teaching strategies learned through their advanced education and training, experienced lower levels of job-related stress (Fantuzzo, et. al., 2012). Although the above literature supports that teachers with more resources, such as education, have the ability to manage stressful conditions (Maddi, &

Khoshaba, 1994), in this sample, teachers' access to other resources may have impacted these findings. The present study indicated that there are no differences between education, experience, and stress.

### **Social Support**

There were no difference in the satisfaction of the support people and age (Table 18). There was a difference in the education and the number of people that support a teacher (Table 29), but not in the satisfaction of the support people. There were no significant differences in experience with the number of people and the satisfaction of the support (Table 52). Other research on Pre-Kindergarten and Kindergarten teachers found that personal resources, such as social support, may reduce teacher burnout by promoting teacher effectiveness (Kokkinos, 2007). Social support according to Sarason, et. al (1983) is the emotional comfort that teachers receive from administrators, colleagues, parents, and students, which has been identified as a resource that enables teachers to cope with stress. The current study indicated that the number of people that support the teacher can make a difference in reducing stress and burnout, however there is no difference in the satisfaction of the support the individuals give. Teachers, need others to talk to and to listen. This data suggests that the interaction between the teacher and the people that support them is not always perceived as satisfactory to the teacher..

### **Burnout**

There was a significant difference in burnout subscale of emotional exhaustion and age (Table 14). Emotional exhaustion occurs when the teachers have put all of their energy into teaching and have run out of options (Freudenberger, 1974). In this current research study the data suggests that there are differences in the age of the teacher and the teachers level of

emotional exhaustion. Further research is necessary to determine how age may predict emotional exhaustion. Depersonalization occurs when the teacher develops negative view of themselves in their profession. The current research study indicates that there were no differences in depersonalization and age. The age of the teacher does not indicate how they view themselves. Personal accomplishment refers to being happy in one's profession and feeling a sense of pride. According the current research there is a difference in personal accomplishment and age. This suggests the age of the teacher may determine how happy they are in their profession. There is no difference in emotional exhaustion and education (Table 32). The education of the teacher does not determine the energy level they feel for their daily tasks. The current research data suggests that there is a difference in depersonalization and personal accomplishment and education. The level of education may effect the teachers' negative feelings about their school and community, as well as, their perceived positive view of the teaching profession. There are no differences in teacher's years of experience and the subscales of burnout: Emotional exhaustion, depersonalization, and personal accomplishment (Table 44). This suggests that there is no difference in the experience of the teacher and their level of burnout. This finding is consistent with current literature that states that a positive attitude, self-efficacy, coping, teaching skills, professional reflection and growth, and self-care assisted teachers in preventing burnout (Beltman, Mansfield, & Price, 2011).

As suggested by the teachers participating in this study, pre-kindergarten and kindergarten teachers higher in hardiness will have less burnout. Hardiness is not a characteristic that magically prevents a negative environment from having influence on the teacher. It is more an attitude to resist the negative effects of the environment that teachers face on a daily basis (Masten, et. al, 1990). Specifically, a teacher must turn stresses to their

advantage, have influence on what is happening in their classroom, and learn, rather than give up (Ghorbani, et. al., 2000). Hardiness encourages coping and can turn a stressful event into a non-stressful event (Maddi & Hightower, 1999). According to Maddi and Khoshaba (1994), hardiness is conceptualized by the interrelated traits of control, commitment, and challenge. These traits manage stressful conditions that teachers face and adapt these stressful conditions into positive life experiences.

### **Limitations of Research Study**

This study was completed over a one-month period of time. It represents snapshot of a teacher's stress, burnout, level of social support, and hardiness at a certain point in the school year. This survey was distributed in December and January, which may not be considered a high-stress point in the school year such as the beginning of the school year, testing weeks, and parent-teacher conferences. The survey distributed was a self-report questionnaire; data collected using a self report questionnaire runs the risk of being inaccurate or incomplete (Creswell, 2014). Teachers may also feel that they cannot be truthful with their responses on the questionnaire, for fear that their supervisor may not agree with their answers.

### **Participants**

Another limitation was finding enough participants to meet a statistically significant sample size. The three conferences resulted in approximately 150 completed surveys. Teachers that completed and returned the survey placed their names in a drawing for a one of twenty \$10.00 gift cards. In addition surveys were distributed to schools and childcare centers in the Bayou City area with a self-addressed stamped envelope returning the surveys to the researcher. The participants could also place their names in the drawing for the gift cards. Of the surveys

distributed, one school was returned as not interested and all surveys were blank. These surveys were not used in the final data calculations. Of the 216 surveys distributed approximately 196 surveys were returned completed (N=196) which yields a 91% return rate. The data collected from the participants was a convenience sampling. A convenience sampling consists of participants that were easy to reach and willing to participate in the survey. A convenience sampling may not always be generalizable to the entire population of pre-kindergarten and kindergarten teachers (Creswell, 2014).

### **Education Levels of Participants**

The final limitation was the population used for the proposed study. The study comprised of teachers in the public schools, private schools, *Headstart* centers, for-profit and non-profit child care centers. The level of education in the present study differed from national statistics, which may impact the generalizability of the research results (Creswell, 2014).

## **Implications**

### **Hardiness**

The findings of the current study demonstrate there is a statistically significant relationship between hardiness, stress, and burnout. As the level of hardiness increased in pre-kindergarten and kindergarten teachers, the levels of stress and burnout decreased. As a society subjected to many political, economic and socio-cultural changes, the early childhood profession could be not only a source of satisfaction, but also a source of dissatisfaction which could impact a teacher's level of stress and burnout. Teaching as a field has been indicated as one of the most stressful occupations at an international level (Schonfeld, 2001). Teachers with higher levels of

the hardiness will experience less stress and burnout. Administrators as well as teachers must look at the personality attribute of hardiness as a prevention technique for stress and burnout. Teachers are faced with stressful turmoil in both the world and the workplace; the attitudes and skills of hardiness could change this stress to their advantage and prevent stress and burnout. Hardiness or hardy attitudes, as defined by Maddi and Khoshiba (2005) give teachers the ability to be more resilient as stress mounts. The hardy attitudes of commitment, control, and challenge provide people with the courage and drive to strengthen resilience, no matter what life throws at them. Teachers high in hardiness turn stressful circumstances into positive, more manageable situations. Teachers that recognize stress, have the courage and strategies to turn the stress into a growth opportunity.

### **Social Support**

This study suggested a statistically significant relationship between the number of people that support the teacher's high levels of hardiness. As the number of people that supported the teacher increased, hardiness increased. Social support increases the ability to withstand and overcome frustrations and problem-solving challenges (Sarason, et al., 1983). Those with a hardy personality make better use of social support to mediate stress. This study indicated that there was no significant relationship between the perception of the satisfaction of the support people and the level of the teacher's hardiness. This suggests that teacher's rely on others for support, but do not always perceive this support as worthwhile or satisfying.

### **Education**

This study also indicated a statistically significant relationship between education and burnout. Teachers that perceive they have the knowledge and abilities perceive themselves as

more successful. Based on Bandura's (1996) social cognitive framework, teachers high in self-efficacy have the perception that they can complete any task. The ability to complete a task increases the teacher's feelings of personal accomplishment and decreases the emotional exhaustion and depersonalization subfacets of burnout. A higher level of education can lead to a strong sense of self-esteem. According to Maslow (1973), all people desire a strong sense of self-esteem and respect from others. Teachers that have the knowledge of developmentally appropriate practices as well as understanding of child development use these skills to meet their daily challenges as opportunities for student growth. Teachers without this basic knowledge become frustrated with the students, and are more easily stressed. Other literature indicates that prolonged stress can lead to teacher burnout (Kyriacou, 1989). A strong teacher education program that offers teachers the abilities to work with students and to gain knowledge from the classroom and mentor teachers, could alleviate not only stress and burnout, but increase teacher longevity and job satisfaction.

### **Recommendations for Future Research**

The completion of this study suggested that level of hardiness had a relationship with the level of stress and burnout in pre-kindergarten and kindergarten teachers. The research design indicated that the higher the level of hardiness the lower levels of stress and burnout. Further research is needed to determine the extent of this relationship and the implications stress, age, administrator support, and hardiness could have on teacher job satisfaction and longevity in the classroom. In addition, further research could be developed on the effectiveness of hardiness training programs and the development of surveys that could be used by administrators to determine the hardiness of the teaching applicant.

## **Stress**

There was a significant difference in stress and the age of the teacher. Although, these differences were not determined in this study, further research is necessary to determine if younger or older teachers are more stressed. This future study could assist administrators in preventing or alleviating stress in the age and populations of teachers. As included in the review of literature, by reducing or alleviating stress in pre-kindergarten and kindergarten teachers, one could prevent teacher burnout and increase teacher longevity in the profession.

## **Administrator Support**

The *SSQ6* survey used in this study indicated that of the 196 participants, 192 perceived no support from their administrators. In a recent study by Badri, Ferrandino, Mohaidat, and Mourad (2013), they found that teachers are more satisfied with their jobs if they see their work environment as supportive. Administrator support has a strong impact on teacher stress and burnout (Badri, et. al, Li & Perry, 2011). Further research is needed to determine what teachers perceive as administrator support. Once this is determined, a program should be developed in schools with teachers and administrators to increase communication and support. Increased administrative support has the ability to reduce stress, burnout, and longevity in the teaching profession.

## **Hardiness**

This study found a statistically significant relationship between hardiness, stress, and burnout. The higher the level of the teacher's hardiness; the lower the levels of stress and burnout. Hardy individuals are committed to what they do and view life challenges as opportunities (Maddi, 2011). According to many previous research studies, the hardiness



personality attributes (using cognitive and emotional appraisal) help teachers identify situations and apply coping mechanisms to decrease stressful situation and turn it into an opportunity for growth. A hardiness-training program such as the one by Khoshaba & Maddi (2011) could be used to help teachers handle stressful circumstances by turning them to advantages. In addition, social support and interactions of the hardiness training can assist teachers in resolving problems that they may face in the classroom and with administrators. Further research could be done on the effectiveness of the hardiness training could be measured before the training began and then after to determine if this method is effective on pre-kindergarten and kindergarten teachers.

Additionally, a tool could be developed for administrators to determine the hardiness of an applicant applying for a position for their school. It has been determined that the higher the level of hardiness, the lower the levels of stress and burnout. A tool such as this could assist hiring managers in choosing an applicant that may be more successful in their jobs and look at the classroom as an opportunity for growth. A longitudinal study could also examine if hiring teachers with hardy personalities determines if there is a relationship between hardiness and their job satisfaction, burnout, and longevity in their position.

### **Summary**

The purpose of Chapter 5 was to summarize the finding of the current research study regarding the relationship of stress, burnout, hardiness, and social support in pre-kindergarten and kindergarten teachers. The results suggested a statistically significant relationship between hardiness, stress, and burnout in a sample of pre-kindergarten and kindergarten teachers in the Bayou City area. Also discussed were the statistically significant differences in hardiness, stress, burnout, and social support with the demographic characteristics of age, education, and

experience. The research demonstrated that hardiness could predict burnout by 14%. The discussion of the results of the study, the limitations of this study, the implications for pre-kindergarten, kindergarten teachers, and administrators were discussed. Recommendations for further research were made in the areas of stress, administrative support, and hardiness.

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## APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

### ACTION ON PROTOCOL APPROVAL REQUEST



Institutional Review Board  
Dr. Dennis Landin, Chair  
130 David Boyd Hall  
Baton Rouge, LA 70803  
P: 225.578.8692  
F: 225.578.5983  
[irb@lsu.edu](mailto:irb@lsu.edu) | [lsu.edu/irb](http://lsu.edu/irb)

**TO:** Cyndi DiCarlo  
Education

**FROM:** Dennis Landin  
Chair, Institutional Review Board

**DATE:** September 30, 2015

**RE:** IRB# 3646

**TITLE:** A study of the relationship of stress, burnout, hardiness, and social support in pre-kindergarten and kindergarten teachers

**New Protocol/Modification/Continuation:** New Protocol

**Review type:** Full ☐ Expedited ☒ **Review date:** 9/30/2015

**Risk Factor:** Minimal ☒ Uncertain ☐ Greater Than Minimal ☐

**Approved** ☒ **Disapproved** ☐

**Approval Date:** 9/30/2015 **Approval Expiration Date:** 9/29/2016

**Re-review frequency:** (annual unless otherwise stated)

**Number of subjects approved:** 200

**LSU Proposal Number (if applicable):**

**Protocol Matches Scope of Work in Grant proposal: (if applicable)** \_\_\_\_\_

**By:** Dennis Landin, Chairman 

**PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –**  
**Continuing approval is CONDITIONAL on:**

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects\*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE:**

*\*All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>*



## APPENDIX B: PARTICIPANT INFORMED CONSENT

1

### Consent Form

1. **Study Title:**  
The relationship of stress, burnout, hardiness, and social support in pre-kindergarten and kindergarten teachers.
2. **Performance Sites:**  
Pre-school's and childcare centers in Baton Rouge and the surrounding community.
3. **Contacts:** M-F 8:30 a.m. – 3:00  
  
Michelle DeMeulenaere, 225-223-1066
4. **Purpose of the Study:** The purpose of this study is to examine the correlation of stress, burnout, hardiness, Demographic and social support in pre-kindergarten and kindergarten teachers' and to determine if hardy teachers are less vulnerable to stress and burnout.
5. **Subjects:**
  - A. **Inclusion Criteria**  
Pre-kindergarten and kindergarten teachers
  - B. **Exclusion Criteria**  
Teachers in grades other than kindergarten and pre-kindergarten.
  - C. **Maximum number of subjects:** 200 teachers.
6. **Study Procedures:** The study will be conducted using four tools; the *Maslach Burnout Inventory* (MBI), *Teacher Concerns Inventory*, *Dispositional Resilience Scale* (DRS) (Bartone, 2007) and the *Social Support Questionnaire* (SSQ6). The Educators demographic data will be used to determine if there is a relationship between the selected demographic characteristics and teacher's burnout, stress, social support, and hardiness.
7. **Benefits:**  
As a result of this survey, the program will have a better understanding of the relationship between the hardiness personality and teacher stress, burnout, and social support.
8. **Risks/Discomforts:**  
There are no known risks for participation in this study.
9. **Measures taken to reduce risk**  
Data will be coded for anonymity.
10. **Right to Refuse:**  
Participation in the study is voluntary. Teachers have the right to refuse to participate.
11. **Privacy:**  
This study is confidential. All surveys will be coded and no identifying information will be placed on the survey.
12. **Financial Information:**  
  
No incentives will be delivered.
13. **Withdrawal:**  
  
Subjects may withdraw at any time.
14. **Removal:** Individuals will be removed from the study at their request.

**15. Signatures:**

'The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Dennis Landin, Chairman, LSU Institutional Review Board, (225)578-8692. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.'

Signature\_\_\_\_\_ Date\_\_\_\_\_

-----

## APPENDIX C: SECURITY OF DATA

**\*\*Please sign and submit this document with your IRB application\*\***

### Security of Data

Number: PS06.20

### SECURITY OF DATA

#### PURPOSE

I certify that I have read and will follow LSU's policy on security of data – PS06.20 (<http://sites01.lsu.edu/wp/policiesprocedures/policies-procedures/6-20/>) and will follow best practices for security of confidential data ([http://www.lsu.edu/it\\_services/its\\_security/best-practices/sensitive-data.php](http://www.lsu.edu/it_services/its_security/best-practices/sensitive-data.php)). This Policy Statement outlines the responsibilities of all *users* in supporting and upholding the security of *data* at Louisiana State University regardless of *user's* affiliation or relation with the University, and irrespective of where the *data* is located, utilized, or accessed. All members of the University community have a responsibility to protect the confidentiality, integrity, and availability of *data* from unauthorized generation, access, modification, disclosure, transmission, or destruction. Specifically, this Policy Statement establishes important guidelines and restrictions regarding any and all use of *data* at, for, or through Louisiana State University. This policy is not exhaustive of all *user* responsibilities, but is intended to outline certain specific responsibilities that each *user* acknowledges, accepts, and agrees to follow when using *data* provided at, for, by and/or through the University. Violations of this policy may lead to disciplinary action up to and including dismissal, expulsion, and/or legal action. It is recommended that all personnel on your project be familiar with these policies and requirements for security of your data.

In addition it is recommended that PIs review any grant, non-disclosure/confidentiality agreement, or restricted data agreements before publishing articles using the data.

I certify that I have read and understand these policies

Name: Michelle DeMunroe

Date: 9/26/15

## APPENDIX D: PERMISSION FOR *MBI*

For use by Michelle DeMeulenaere only. Received from Mind Garden, Inc. on September 9, 2015



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## APPENDIX E: MBI SURVEY

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### **Maslach Burnout Inventory™ Instruments and Scoring Guides Forms: General, Human Services, & Educators**

Christina Maslach  
Susan E. Jackson  
Michael P. Leiter  
Wilmar B. Schaufeli  
Richard L. Schwab

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## MBI-Educators Survey

Christina Maslach, Susan E. Jackson & Richard L. Schwab

*The purpose of this survey is to discover how educators view their job  
and the people with whom they work closely.*

**Instructions:** On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number "0" (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

---

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

---

**Example:**

How Often 0-6	Statement:
1. _____	I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) under the heading "How Often." If you rarely feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number "5."

## MBI-Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often  
0-6

Statements:

1. \_\_\_\_\_ I feel emotionally drained from my work.
2. \_\_\_\_\_ I feel used up at the end of the workday.
3. \_\_\_\_\_ I feel fatigued when I get up in the morning and have to face another day on the job.
4. \_\_\_\_\_ I can easily understand how my students feel about things.
5. \_\_\_\_\_ I feel I treat some students as if they were impersonal objects.
6. \_\_\_\_\_ Working with people all day is really a strain for me.
7. \_\_\_\_\_ I deal very effectively with the problems of my students.
8. \_\_\_\_\_ I feel burned out from my work.
9. \_\_\_\_\_ I feel I'm positively influencing other people's lives through my work.
10. \_\_\_\_\_ I've become more callous toward people since I took this job.
11. \_\_\_\_\_ I worry that this job is hardening me emotionally.
12. \_\_\_\_\_ I feel very energetic.
13. \_\_\_\_\_ I feel frustrated by my job.
14. \_\_\_\_\_ I feel I'm working too hard on my job.
15. \_\_\_\_\_ I don't really care what happens to some students.
16. \_\_\_\_\_ Working with people directly puts too much stress on me.
17. \_\_\_\_\_ I can easily create a relaxed atmosphere with my students.
18. \_\_\_\_\_ I feel exhilarated after working closely with my students.
19. \_\_\_\_\_ I have accomplished many worthwhile things in this job.
20. \_\_\_\_\_ I feel like I'm at the end of my rope.
21. \_\_\_\_\_ In my work, I deal with emotional problems very calmly.
22. \_\_\_\_\_ I feel students blame me for some of their problems.

(Administrative use only)

EE: \_\_\_\_\_ cat: \_\_\_\_\_ DP: \_\_\_\_\_ cat: \_\_\_\_\_ PA: \_\_\_\_\_ cat: \_\_\_\_\_

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Maslach Burnout Inventory<sup>TM</sup> Instruments and Scoring Guides

Forms: General, Human Services, & Educators

Christina Maslach Susan E. Jackson Michael P. Leiter Wilmar B. Schaufeli Richard L. Schwab

Published by Mind Garden

info@mindgarden.com www.mindgarden.com

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## APPENDIX F: SSQ6

Sarason, I.G., Sarason, B.R., Shearin, E.N., & Pierce, G.R. (1987). A brief measure of social support: Practical and Theoretical implications. *Journal of Social and Personal Relationships*, 4, 497-510.

### Social Support Questionnaire 6 (SSQ6)

#### Instructions:

The following questions ask about people in your life who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the person's initials and their relationship to you (see example). Do not list more than one person next to each of the numbers beneath the question.

For the second part, circle how satisfied you are with the overall support you have.

If you have no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all questions as best you can. All your answers will be kept confidential.

#### Example:

Who do you know whom you can trust with information that could get you in trouble?

No one	1) T.N. (brother)	4) T.N. (father)	7)
	2) L.M. (friend)	5) L.M. (employer)	8)
	3) R.S. (friend)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

1. Whom can you really count on to be dependable when you need help?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

2. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

3. Who accepts you totally, including both your worst and your best points?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

4. Whom can you really count on to care about you, regardless of what is happening to you?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

5. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

How Satisfied?

6 – very satisfied	5 – fairly satisfied	4 – a little satisfied	3 – a little dissatisfied	2 – fairly dissatisfied	1 – very dissatisfied
-----------------------	-------------------------	---------------------------	------------------------------	----------------------------	--------------------------

## APPENDIX G: PERMISSION FOR *TEACHER CONCERNS INVENTORY*

**Michelle DeMeulenaere**

---

**From:** Michael Fimian <Fimian@InstructionalTech.net>  
**Sent:** Monday, June 29, 2015 9:10 AM  
**To:** Michelle DeMeulenaere  
**Cc:** fimian@instructionaltech.net  
**Subject:** RE: Dissertation

Hi Michelle...

Sure, no problem!

Here's what you'll need, in case you haven't found it by now:

<http://www.instructionaltech.net/TSI/index.htm>

Regards,

**Michael**

Dr. Michael J. Fimian  
InstructionalTech.net  
37 Gay Rd  
Brookfield, MA 01506

774-200-7881  
[www.InstructionalTech.net](http://www.InstructionalTech.net)

---

**From:** Michelle DeMeulenaere [<mailto:mdemeulenaere@csobr.org>]  
**Sent:** Friday, June 26, 2015 4:34 PM  
**To:** [Fimian@InstructionalTech.net](mailto:Fimian@InstructionalTech.net)  
**Subject:** Dissertation

I would like to use the Teacher Concerns Inventory for a correlational study that I am doing for my graduate school dissertation.

Please let me know if this is permissible.

Thank you!

*Michelle DeMeulenaere  
10334 Winterhue Dr.  
Baton Rouge, LA 70810*

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## ***The Teacher Stress Inventory Info Site***

### **Welcome to the *Teacher Stress Inventory* Site...**

Thanks for your interest in the Teacher Stress Inventory (TSI). Though the Inventory is out of print, there is still considerable interest in its use among Master- and Doctoral-level students. As a support to their research activities, TSI-related information is being offered here free of charge. Also offered is the use of the Inventory, at no charge, for research purposes.

---

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If you haven't already done so, take a moment and contact Michael at [Fimian@InstructionalTech.net](mailto:Fimian@InstructionalTech.net) to inform him of your interest in using the TSI.

---

### **Data Contribution**

In return, we are interested in receiving a copy of your raw data file, your data bible, and the results chapter of your thesis. These can be submitted in ASCII text form (or the data in either Excel Spreadsheet or Access Database format) via email to [Fimian@InstructionalTech.Net](mailto:Fimian@InstructionalTech.Net). In the future, we'll reanalyze the factor analysis and internal consistency reliabilities, and update this online TSI Manual with your findings. With your permission, a separate page on this site will be established that contains your summary chapter. Please include any references that your work may have with respect to Dissertations Abstracts or other abstract service so that your work may be reviewed online by other TSI users and potential users. A summary will also be added to the "Other Variables" section of this site. Include your email address as well, so that users who do have questions can easily get in touch with you...

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---

### **The Inventory and Terms of Use**

A word-processed version of the Inventory can be found [here](#)... Some formatting may be necessary, depending on your word processor. Feel free to cut and paste the items stems and format your own version. The wording of the stress items must remain the same, but you can alter and add the demographic items any way you see fit for your project...

Alternatively, a graphic version of the TSI can be found [here](#)...

And a PDF [version here](#). A flip-page version can be found at the bottom of this page.

Good Luck with your research!

---

### **The TSI Manual**

You can access the entire online version of the TSI manual by clicking on this [link](#)...

---

### **The TSI on the Web**

You can access the additional information regarding the TSI on the internet by using this link:

## ***The Teacher Stress Inventory Info Site***

### **Welcome to the *Teacher Stress Inventory* Site...**

Thanks for your interest in the Teacher Stress Inventory (TSI). Though the Inventory is out of print, there is still considerable interest in its use among Master- and Doctoral-level students. As a support to their research activities, TSI-related information is being offered here free of charge. Also offered is the use of the Inventory, at no charge, for research purposes.

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If you haven't already done so, take a moment and contact Michael at [Fimian@InstructionalTech.net](mailto:Fimian@InstructionalTech.net) to inform him of your interest in using the TSI.

---

### **Data Contribution**

In return, we are interested in receiving a copy of your raw data file, your data bible, and the results chapter of your thesis. These can be submitted in ASCII text form (or the data in either Excel Spreadsheet or Access Database format) via email to [Fimian@InstructionalTech.net](mailto:Fimian@InstructionalTech.net). In the future, we'll reanalyze the factor analysis and internal consistency reliabilities, and update this online TSI Manual with your findings. With your permission, a separate page on this site will be established that contains your summary chapter. Please include any references that your work may have with respect to Dissertations Abstracts or other abstract service so that your work may be reviewed online by other TSI users and potential users. A summary will also be added to the "Other Variables" section of this site. Include your email address as well, so that users who do have questions can easily get in touch with you...

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A word-processed version of the Inventory can be found [here](#)... Some formatting may be necessary, depending on your word processor. Feel free to cut and paste the items stems and format your own version. The wording of the stress items must remain the same, but you can alter and add the demographic items any way you see fit for your project...

Alternatively, a graphic version of the TSI can be found [here](#)...

And a PDF [version here](#). A flip-page version can be found at the bottom of this page.

Good Luck with your research!

---

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---

### **The TSI on the Web**

You can access the additional information regarding the TSI on the internet by using this [link](#):

## APPENDIX H: TEACHER CONCERNS INVENTORY

## TEACHER CONCERNS INVENTORY

The following are a number of teacher concerns. Please identify those factors which cause you stress in your present position. Read each statement carefully and decide if you ever feel this way about your job. Then, indicate how strong the feeling is when you experience it by circling the appropriate rating on the 5-point scale. If you have not experienced this feeling, or if the item is inappropriate for your position, circle number 1 (no strength; not noticeable). The rating scale is shown at the top of each page.

**Examples:**

I feel insufficiently prepared for my job. 1 2 3 4 5

*If you feel very strongly that you are insufficiently prepared for your job, you would circle number 5.*

I feel that if I step back in either effort or commitment,  
I may be seen as less competent.

*If you never feel this way, and the feeling does not have noticeable strength, you would circle number 1.*

	1	2	3	4	5
HOW STRONG ?	no strength; not noticeable	mild strength; moderately noticeable	medium strength; moderately noticeable	great strength; very noticeable	major strength; extremely noticeable

## TIME MANAGEMENT

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. I easily over-commit myself.                          | 1 | 2 | 3 | 4 | 5 |
| 2. I become impatient if others do things too slowly.    | 1 | 2 | 3 | 4 | 5 |
| 3. I have to try doing more than one thing at a time.    | 1 | 2 | 3 | 4 | 5 |
| 4. I have little time to relax/enjoy the time of day.    | 1 | 2 | 3 | 4 | 5 |
| 5. I think about unrelated matters during conversations. | 1 | 2 | 3 | 4 | 5 |
| 6. I feel uncomfortable wasting time.                    | 1 | 2 | 3 | 4 | 5 |
| 7. There isn't enough time to get things done.           | 1 | 2 | 3 | 4 | 5 |
| 8. I rush in my speech.                                  | 1 | 2 | 3 | 4 | 5 |

Add items 1 through 8; divide by 8; place your score here:

## WORK-RELATED STRESSORS

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 9. There is little time to prepare for my lessons/responsibilities. | 1 | 2 | 3 | 4 | 5 |
| 10. There is too much work to do.                                   | 1 | 2 | 3 | 4 | 5 |
| 11. The pace of the school day is too fast.                         | 1 | 2 | 3 | 4 | 5 |
| 12. My caseload/class is too big.                                   | 1 | 2 | 3 | 4 | 5 |

13. My personal priorities are being shortchanged due to time demands.	1	2	3	4	5
--	---	---	---	---	---

14. There is too much administrative paperwork in my job.	1	2	3	4	5
---	---	---	---	---	---

Add items 9 through 14; divide by 6; place your score here:

#### PROFESSIONAL DISTRESS

15. I lack promotion and/or advancement opportunities.	1	2	3	4	5
--	---	---	---	---	---

16. I am not progressing my job as rapidly as I would like.	1	2	3	4	5
---	---	---	---	---	---

17. I need more status and respect on my job.	1	2	3	4	5
---	---	---	---	---	---

18. I receive an inadequate salary for the work I do.	1	2	3	4	5
---	---	---	---	---	---

19. I lack recognition for the extra work and/or good teaching I do.	1	2	3	4	5
--	---	---	---	---	---

Add items 15 through 19; divide by 5; place your score here:

#### DISCIPLINE AND MOTIVATION

I feel frustrated ...

20. ...because of discipline problems in my classroom.	1	2	3	4	5
--	---	---	---	---	---

21. ...having to monitor pupil behavior.	1	2	3	4	5
--	---	---	---	---	---

22. ...because some students would better if they tried.	1	2	3	4	5
--	---	---	---	---	---

23. ...attempting to teach students who are poorly motivated.	1	2	3	4	5
---	---	---	---	---	---

24. ...because of inadequate/poorly defined discipline problems.	1	2	3	4	5
--	---	---	---	---	---

25. ...when my authority is rejected by pupils/administration.	1	2	3	4	5
--	---	---	---	---	---

Add items 20 through 25; divide by 6; place your score here:

#### PROFESSIONAL INVESTMENT

26. My personal opinions are not sufficiently aired.	1	2	3	4	5
--	---	---	---	---	---

27. I lack control over decisions made about classroom/school	1	2	3	4	5
---	---	---	---	---	---

28. I am not emotionally/intellectually stimulated on the job.	1	2	3	4	5
--	---	---	---	---	---

29. I lack opportunities for professional improvement.	1	2	3	4	5
--	---	---	---	---	---

Add items 26 through 29; divide by 4; place your score here:

#### EMOTIONAL MANIFESTATIONS

I respond to stress...

30. ...by feeling insecure.	1	2	3	4	5
-----------------------------	---	---	---	---	---



13. My personal priorities are being shortchanged due to time demands. 1 2 3 4 5

14. There is too much administrative paperwork in my job. 1 2 3 4 5

Add items 9 through 14; divide by 6; place your score here:

#### PROFESSIONAL DISTRESS

15. I lack promotion and/or advancement opportunities. 1 2 3 4 5

16. I am not progressing my job as rapidly as I would like. 1 2 3 4 5

17. I need more status and respect on my job. 1 2 3 4 5

18. I receive an inadequate salary for the work I do. 1 2 3 4 5

19. I lack recognition for the extra work and/or good teaching I do. 1 2 3 4 5

Add items 15 through 19; divide by 5; place your score here:

#### DISCIPLINE AND MOTIVATION

I feel frustrated ...

20. ...because of discipline problems in my classroom. 1 2 3 4 5

21. ...having to monitor pupil behavior. 1 2 3 4 5

22. ...because some students would better if they tried. 1 2 3 4 5

23. ...attempting to teach students who are poorly motivated. 1 2 3 4 5

24. ...because of inadequate/poorly defined discipline problems. 1 2 3 4 5

25. ...when my authority is rejected by pupils/administration. 1 2 3 4 5

Add items 20 through 25; divide by 6; place your score here:

#### PROFESSIONAL INVESTMENT

26. My personal opinions are not sufficiently aired. 1 2 3 4 5

27. I lack control over decisions made about classroom/school 1 2 3 4 5

28. I am not emotionally/intellectually stimulated on the job. 1 2 3 4 5

29. I lack opportunities for professional improvement. 1 2 3 4 5

Add items 26 through 29; divide by 4; place your score here:

#### EMOTIONAL MANIFESTATIONS

I respond to stress...

30. ...by feeling insecure. 1 2 3 4 5

- |                                   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|
| 31. ...by feeling vulnerable.     | 1 | 2 | 3 | 4 | 5 |
| 32. ...by feeling unable to cope. | 1 | 2 | 3 | 4 | 5 |
| 33. ...by feeling depressed.      | 1 | 2 | 3 | 4 | 5 |
| 34. ...by feeling anxious.        | 1 | 2 | 3 | 4 | 5 |

Add items 30 through 34; divide by 5; place your score here:

#### **FATIGUE MANIFESTATIONS**

I respond to stress...

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 35. ...by sleeping more than usual.               | 1 | 2 | 3 | 4 | 5 |
| 36. ...by procrastinating.                        | 1 | 2 | 3 | 4 | 5 |
| 37. ...by becoming fatigued in a very short time. | 1 | 2 | 3 | 4 | 5 |
| 38. ...with physical exhaustion.                  | 1 | 2 | 3 | 4 | 5 |
| 39. ...with physical weakness.                    | 1 | 2 | 3 | 4 | 5 |

Add items 35 through 39; divide by 5; place your score here:

#### **CARDIOVASCULAR MANIFESTATIONS**

I respond to stress...

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 40. ...with feelings of increased blood pressure. | 1 | 2 | 3 | 4 | 5 |
| 41. ...with feeling of heart pounding or racing.  | 1 | 2 | 3 | 4 | 5 |
| 42. ...with rapid and/or shallow breath.          | 1 | 2 | 3 | 4 | 5 |

Add items 40 through 42; divide by 3; place your score here:

#### **GASTRONOMICAL MANIFESTATIONS**

I respond to stress ...

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 43. ...with stomach pain of extended duration. | 1 | 2 | 3 | 4 | 5 |
| 44. ...with stomach cramps.                    | 1 | 2 | 3 | 4 | 5 |
| 45. ...with stomach acid.                      | 1 | 2 | 3 | 4 | 5 |

Add items 43 through 45; divide by 3; place your score here:

#### **BEHAVIORAL MANIFESTATIONS**

I respond to stress...

46. ...by using over-the-counter drugs.	1	2	3	4	5
47. ...by using prescription drugs.	1	2	3	4	5
48. ...by using alcohol.	1	2	3	4	5
49. ...by calling in sick.	1	2	3	4	5

Add items 46 through 49; divide by 4; place your score here:

### **TOTAL SCORE**

Then, divide by 10; enter the Total Score here

### **Demographic Variables**

Number of years you have taught?

Your age:

How many students do you teach each day?

What level students do you teach? (circle the rest of your answers)

Pre-K Kindergarten

Which is the most advanced degree you have?

CDA Associates Bachelors Masters Doctorate

Do you and your peers support one another when needed? Yes No

Do you and your supervisors support one another when needed? Yes No

## APPENDIX I: PERMISSION TO USE DRS-15

**Michelle DeMeulenaere**

---

**From:** Michelle DeMeulenaere <demeumi1@cox.net>  
**Sent:** Thursday, September 10, 2015 7:46 AM  
**To:** Michelle D  
**Subject:** Fwd: DRS Download Information

Begin forwarded message:

**From:** Dr. Paul T. Bartone <[bartonep@gmail.com](mailto:bartonep@gmail.com)>  
**Subject:** DRS Download Information  
**Date:** September 9, 2015 at 11:06:01 AM CDT  
**To:** [demeumi1@cox.net](mailto:demeumi1@cox.net)  
**Reply-To:** Dr. Paul T. Bartone <[bartonep@gmail.com](mailto:bartonep@gmail.com)>

Greetings -

Thanks for your interest in the Dispositional Resilience Scale and for agreeing to the terms of use.

The term of your license is for one year from the date of purchase, and is valid for use only by the licensee. Your download link will be provided upon completion of payment, and also sent to you in a separate email. If you do not receive the email, please remember to check your spam folder. If you have any questions, feel free to contact me.

Sincerely,

Dr. Paul T. Bartone  
<http://www.hardiness-resilience.com>

**Package Contents:** Listed below is a brief description of the documents contained in this package, including the terms of use which you are accepting with the included license agreement. Reminder: all outside inquiries regarding the use of any document contained herein, whether for research or commercial applications, should be referred to the Hardiness-Resilience website, or to [www.kbmetrics.com](http://www.kbmetrics.com).

- 1) **DRS-EULA-Academic-2014.pdf:** Contains a reference copy of the End User License Agreement. Please be cognizant of, and abide by the agreed-upon terms.
- 2) **DRS15v3.2.pdf:** This is the most recent and up-to-date version of the 15-item Dispositional Resilience Scale currently available. This version of the DRS15 is better balanced and more culture-free than earlier versions. Several idiomatic phrases were replaced with terms that translate more readily and accurately into non-English languages. There are five items each to measure the hardiness facets of Commitment, Control, and Challenge. Six items are negatively-keyed, making this version quite well-balanced for negative and positive items, thus minimizing acquiescence response bias.
- 3) **DRS15v 3.2-key.pdf:** This document provides the scoring key and instructions for the DRS15.
- 4) **DRS15v3.2-score.pdf:** A new form of the DRS15 designed for easy hand scoring. Completed forms are scored by transferring the number beside each checked box to the open white box in the column on the right of the item. Sum the numbers in these columns to obtain the CM commitment, CO control, and CH challenge scores. Then simply add these three facet scores together for a total hardiness score.
- 5) **DRS15v3.2-auto-score.pdf:** A new, fillable pdf form that automatically calculates hardiness facet and total scores. Scores are revealed only when the completed form is sent to print. NOTE: All 15 items must be answered in order for the auto-scoring to be accurate.
- 6) **DRS15v3.2-profile-adults:** A one-page profile form for adults. Individual raw test scores can be entered on this form for easy conversion to T-scores.
- 7) **DRS15v3.2-hardiness-score-interpretation.pdf:** A one-page sheet that provides a general explanation of how to interpret total hardiness scores within five scoring bands: 39+ (Very High), 34-38 (High), 28-33 (Average), 22-27 (Low), and 22 and below (Very Low). These scoring bands are based on the adult normative samples for both men and women.
- 8) **DRS15v3.2-Norms:** Contains norms for the DRS-15, including:
  - a. Adult normative data, broken down by sex and also for the three facets of Commitment, Control and Challenge. These are based upon a large sample of over 7,000 male and female adults (age 20 – 60) who completed

# APPENDIX J: DRS-15

## DRS-15 (v3.2)

**Below are statements about life that people often feel differently about. Check the box to show how much you think each one is true. Give your own honest opinions . . . There are no right or wrong answers.**

	Not at all true	A little true	Quite true	Completely true	(Office use)			
1. Most of my life gets spent doing things that are meaningful	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
2. By working hard you can nearly always achieve your goals	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
3. I don't like to make changes in my regular activities	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
4. I feel that my life is somewhat empty of meaning	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
5. Changes in routine are interesting to me	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
6. How things go in my life depends on my own actions	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
7. I really look forward to my daily activities	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
8. I don't think there is much I can do to influence my own future	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
9. I enjoy the challenge when I have to do more than one thing at a time	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
10. Most days, life is really interesting and exciting for me	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
11. It bothers me when my daily routine gets interrupted	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
12. It is up to me to decide how the rest of my life will be	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
13. Life in general is boring for me	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
14. I like having a daily schedule that doesn't change very much	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0				
15. My choices make a real difference in how things turn out in the end	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3				
					HD	CM	CO	CH

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## VITA

Michelle DeMeulenaere received her Bachelor of Arts Degree from the University of Northern Iowa in Elementary Education. She later received her Masters of Education from Northwestern Louisiana University. Michelle has held positions such as an elementary teacher, a preschool teacher, a childcare director, and education specialist. Michelle is currently a candidate for the Philosophy of Education at Louisiana State University.