FIRST (1st) CHAPTER
INTRODUCTION & LITERATURE REVIEW
THE RATIONAL AND SIGNIFICANCE OF PRESENT RESEARCH

In recent years, educational system and organization has become the target of widespread scrutiny and criticism, while at the same time the rewards of teaching are often obscured by the difficult working conditions that are prevalent in many of our schools. Against this backdrop of heightened job pressure and reduced professional satisfaction, it is not surprising that alarming statements have been issued repeatedly in the educational literature about the growing prevalence of teacher stress and burnout (e.g., Borg, 1990, Farber, 1991, Hodge, Jupp, & Taylor, 1994). Research has shown that teachers are exposed to a number of sources of stress. Kyriacou (2001) reports that the main sources of teacher stress stem from teaching students who lack motivation, maintaining discipline in the classroom, confronting general time pressures and workload demands, being exposed to a large amount of change, being evaluated by others, having difficult or challenging relationships with colleagues, administration, or management, and being exposing to generally poor working conditions.

After surveying studies of maladjustment in teachers, Kaplan (1959) concluded that "three million children are daily exposed to teachers who are too maladjusted to be around children". It has been reported that teacher stress and burnout inevitably affect the learning environment and interfere with the achievement of educational goals insofar as they lead to teachers' detachment, alienation, apathy and absenteeism and ultimately the decision to leave the field (Farber, 1991, Jenkins & Calhoun, 1991). A general presumption of the occupational stress literature is that personal work stress and strain ultimately lead to failing individual health and illness (e.g., Cooper, & Marshall, 1976, Fletcher, 1993, Ganster, & Schaubroeck, 1991). Some empirical support exists for this relationship. A National Institute of Mental Health summarizes literature concerning of the relationship between stress and susceptibility to various types of disease [Vitkovic & Kaslow, (1994) as stated by Manning et al., (1996)]. On the other hand, mental health problems occur in all ages and social groups, but levels are high in adolescence and school age children (Australian Health Ministers, 2003). These may include academic pressures, leaving school, increasing independence from family, entering the workforce, early experience with intimate and sexual relationships, or the use of alcohol and drugs.
In recent years the issue of mental health problems in the school setting, and the broader concept of promoting resilience for all the students, has grown its importance in education. Unresolved mental health problems including depression can have devastating effects in adolescence and increase the risk of school failure, violence or suicidal behavior (Lewinsohn, Rohde, Klein, & Seeley, 1999). Conversely, teaching in ways that promote resilience may help to prevent mental health difficulties and also improve behavior and learning outcomes (Zins et al., 2004).

It is asserted that the classroom is an organization or “a group of learners”, where the teacher is the leader or the leading learner. Change (1994) (stated by: McGoran, 2005) states that “a class of students and their leader are in nature a small organization that may be studied and managed by theories of organization and management”. As a matter of fact, not only school is a system (organization) but also, it is the most important organization in every country or in any time. In other organization if there were any problems in system the product of a system will decrease, but in a school system if there were any problems, learners (output) will be unhealthy and illiterate and these learners will spread in every other organization. In this system teachers have the most important role. Then, the study of their health (mental and physical) and the effect of exogenous variables like occupational stress and endogenous variables like emotional intelligence on their health are important. In other words, school is a system (organization). This system should produce healthy knowledgeable learners, and in this school system, teachers are the most important factor who has authority in the domain that explained for them. Then, their health (mental and physical), and the factors which have effect on it are so critical in the healthy school system.

**RESEARCH OBJECTIVES**

This study has seven primary objectives as follow:

1. Constructing and developing a most suitable valid and reliable Teachers Occupational Stress Questionnaire (TOSQ).

2. Determination of the effect of independent variables (Emotional Intelligence, Job Burnout, and Occupational Stress) on dependent variables (Mental and Physical Health) separately.
3. Study of the difference of the occupational stress score with consideration of gender, age, and nationality of the sample (Iran, and India).

4. Study of the difference of the emotional intelligence score with consideration of gender, age, and nationality of the sample (Iran, and India).

5. Study of the difference of the job burnout score with consideration of gender, age, and nationality of the sample (Iran, and India).

6. Study of the difference of the mental health score with consideration of gender, age, and nationality of the sample (Iran, and India).

7. Study of the difference of the physical health score with consideration of gender, age, and nationality of the sample (Iran, and India).

RESEARCH HYPOTHESIS

1. The researcher constructed Teacher's Occupational Stress Questionnaire (TOSQ) is the valid and reliable questionnaire for assessing teachers' occupational stress.

RESEARCH QUESTIONS

1. How is the regression correlation of studied variables?

2. Is there any significant difference between the mean scores of occupational stress with consideration of country?

3. Is there any significant difference between the mean scores of occupational stress with consideration of gender and country, simultaneously?

4. Is there any significant difference between the mean scores of occupational stress with consideration of age?

5. Is there any significant difference between the mean scores of occupational stress with consideration of work experience?

6. Is there any significant difference between the mean scores of emotional intelligence with consideration of country?

7. Is there any significant difference between the mean scores of emotional intelligence with consideration of gender and country, simultaneously?

8. Is there any significant difference between the mean scores of emotional intelligence with consideration of age?
9. Is there any significant difference between the mean scores of emotional intelligence with consideration of work experience?
10. Is there any significant difference between the mean scores of job burnout with consideration of country?
11. Is there any significant difference between the mean scores of job burnout with consideration of gender and country, simultaneously?
12. Is there any significant difference between the mean scores of job burnout with consideration of age?
13. Is there any significant difference between the mean scores of job burnout with consideration of work experience?
14. Is there any significant difference between the mean scores of mental and physical health with consideration of country?
15. Is there any significant difference between the mean scores of mental and physical health with consideration of gender and country, simultaneously?
16. Is there any significant difference between the mean scores of mental and physical health with consideration of age?
17. Is there any significant difference between the mean scores of mental and physical health with consideration of work experience?
INTRODUCTION

The study of emotion has a long and fragmented history (Plutchik, 1994). The scientific study of emotion indeed predates "The formal birth of psychology with the writings of Charles Darwin (1872-1965)" (Weiss & Cropanzano, 1996, P.17). Emotion also presented itself in the writings of the so-called fathers of psychology, namely William James and Wilhelm Wundt, at its inception. However, objectivity and reason have been the designated rulers of western philosophy, religion and science since the days of Socrates- Greek philosopher who developed a question-and-answer method of teaching- (Solomon, 1993), whilst passions and emotions have been viewed with some contempt. Solomon challenges this stance by pleading that our passions are the soul of our existence, the source of our interests, our purpose, enticing us, drawing us forward. In addition, Ellsworth (1994) argues that the study of emotion has again become a topic pursued with vigor.

According to Ledoux (1998) emotions happen to us, rather than us willing them to occur. Hence, we have little direct control over our emotional reaction. Conscious control over our emotions is weak and emotions readily flood consciousness states (Ledoux, 1998). This ensues owing to evolution; the human brain is wired so that connections from the emotional to the cognitive system are stronger than from the cognitive to emotional system (Bennett-Goleman, 2002). Emotion assists with decision-making, significantly influences learning and memory, and motivates for critical action when called by environmental cues. It is, therefore, important to consider the role of emotions in the workplace if organizational behavior is to be better understood.

The construct of emotions is difficult to define because an emotional reaction, rather than being a single reaction, constitutes a constellation of reactions to an event. Frijda (1993) includes the following essential components, namely:

• An experiential component, feelings have an emotional, non-cognitive element, resulting from the cognitive appraisal of an event,
• It is characterized as pleasant / unpleasant;
• Physiological changes accompany the emotion; and
• An action tendency / increased arousal and a general readiness to deal with the environment ensue.
• Emotions further have an event / object specificity, therefore an emotion arises in response to ‘something’ or ‘someone’.

NEUROLOGICAL SUBSTRATES OF EMOTIONS

Focus is on the central circuitry which forms part of the so-called limbic system, a hypothesized area in the brain intimately (but not exclusively) involved in the production of emotion. Two key components of the central circuitry, namely the pre-frontal cortex and the amygdala are engaged with emotions.

THE PREFRONTAL CORTEX (PFC)

Two different, partially separable circuits support the experiencing of emotion, namely a circuit for appetitive / approach behavior typified by positive affect, and another for withdrawal behavior and typified by negative affect (Davidson et al., 2000; Davidson & Irvin, 1999). This seems to support of Fredrickson's (1998) argument that positive and negative emotions should be viewed as different subsystems. A number of theoretical accounts (Frijda, 1994; Levenson, 1994) assign the PFC an important role in both organizing and guiding behavior toward acquiring motivationally significant goals. For this to proceed, the organism needs to have an affective working memory to represent affect when rewards and punishments (or other affective incentives) are not immediately available. Therefore, if parts of the PFC are impaired, this may hamper an individual’s ability to anticipate future affective consequences, sustain motivation, and adaptively guide behavior in pursuance of the goal (Watanabe, 1996).

THE AMYGDALA

Convincing evidence has implicated the amygdala in emotional processing. Information about the external world seemingly reaches the amygdala in two ways. First, a short and direct pathway provides the amygdala with crude information from the sensory thalamus. This information is not filtered via cortical processing but is rather biased to evoke a response. This initial, crude response is therefore useful under life-threatening conditions, enabling the organism to respond to a stimulus even before it has been properly identified (Bennet-Goleman, 2002). However, continuously unchecked amygdala responses (impulsive behavior) may violate convention and result in social sanction (for example in the workplace). The second and longer route entails information traveling from the thalamus to the cortex (where the information is encoded with more detail) and then back to the amygdala to check inappropriate responding (LeDoux, 1998).
THE RIGHT PFC

Research seems to support a negative emotional bias in regard to right pre-frontal activation as already manifested at infancy (Davidson & Fox, 1989), and in toddlers and young children (Davidson & Rickman, 1999). Hendriques and Davidson (1990) found that those presenting with a history of depression (compared with never - depressed controls), exhibited less left prefrontal activation. Individuals with relative increased right prefrontal activation seem to exhibit more negative dispositional affect.

THE LEFT PFC

Individuals who demonstrate relative left-sided prefrontal activation were found to recover more quickly from a negative startle response (Fredrickson, 1998). This may be interpreted as their enhanced ability to recover from negative affect and stress in comparison with those individuals with a relatively increased right PFC activation. Research by Amaral, Price, Pitkanen and Carmichael (1992) and Davidson et al. (2000), states that a descending pathway exists between the medial PFC and the amygdala that seems to be inhibitory and involved in the dampening and extinction of negative affect, as is evident in those individuals who seem more resilient.

POSITIVE EMOTIONS BROADEN AND BUILD

Positive emotions appear also to share the feature of incrementally building a “variety of enduring personal resources” (Fredrickson, Mancuso, Branigan, Tugade, 2000, P.239). Example quoted include, inter alia, the building of intellectual resources by increasing creativity (Sherrod & Singer, 1989), developing a theory of mind (Leslie, 1987), and by promoting brain development (Panksepp, 1998). Fredrikson et al. (2000) furthermore proposes that the adaptive value of positive emotions is distinct from those of negative emotions. “Positive emotions may promote survival over the long run by incrementing the resources that could be drawn on when facing later, inevitable threats” (P.239). Fredrikson (1998, 2001) accordingly formulated a new theoretical model to encapsulate and reflect the unique effects of positive emotions. She named it the Broaden-and-build theory of positive emotions. She proposes that certain discrete positive emotions including “joy, interest, contentment, pride and love –although phenomenologically distinct- all share the ability to broaden people’s momentary thought-action repertories” (2001, P.2). This, according to her, contributes to building enduring personal resources ranging to include physical, intellectual and psychological
resources. Fredrickson (2001) proposes that two distinct types of positive emotions may be observed, namely, those that provide for a high activation state (joy) and those that cause a low activation state (contentment), both of which provide for a broader thought-action repertoire than neutral states. Also, two distinct negative emotions, namely fear and anger, were found to produce a narrower thought-action repertoire than does a neutral state.

Negative emotional states, especially those high in arousal such as anxiety and fear, tend to narrow a person's attention span (Derryberry & Tucker, 1994). Adding to the argument, Basso, Schefft, Ris and Dember (1996) demonstrated that anxiety and depression (negative emotional traits), predicts a bias that is consistent with a narrowed attentional focus. By contrast, Derryberry and Tucker (1994) proposed that positive emotions demonstrate the opposite effect and expand the attentional focus. Subjective well being and optimism (positive emotional traits) were found to predict a bias consistent with a broader attentional focus. Isen (2000) has found that —relative to neutral states— positive emotions contribute to expand the scope of people's visual attention together with their momentary thought-action repertoires. This holds true for both high and low activation states. Also, positive emotions broaden the scope of cognition. Isen (2000) provides an overview of two decades of experimental work in this regard. Research documented that people experiencing positive affect exhibit thought patterns that are: unusual (Isen, Johnson, Mertz & Robinson, 1985); flexible (Isen, Daubman & Nowicki, 1987); integrative (Isen, Rozensweig & Young, 1991); open to information (Estrada, Isen & Young, 1997), and efficient (Isen & Means, 1983; Isen et al., 1991). Studies demonstrating that positive emotions broaden the scope of thinking may indirectly point to a broadened scope of action (Kahn & Isen, 1993).

Positive emotions build physical resources. Positive emotions eliciting playfulness may, for example, contribute to building specific gross motor skills that may be drawn on in later (emergency) situations (Boulton & Smith, 1992). Securely attached children are on average more persistent, enthusiastic, and effective problem solvers (Matas, Arend & Sroufe, 1978). Also, for adults, interest, by creating an urge to explore and accumulate. New information and experiences, serves to expand the self in the process (Csikszentmihalyi, 1990; Izard, 1997; Ryan & Deci, 2000).
Positive emotions build social resources. Lasting social relationships are crucial to human well-being. According to Fredrickson (1998), shared positive social experiences, such as mutual play and smiling contribute both to momentary enjoyment and enduring relationships that may be accessed in times of need. Isen (1987) pointed out that individuals who have experienced positive affect are more likely to help others. This may contribute to reciprocal positive interchanges that in the long run, may provide for enhanced support systems.

Positive emotions may undo the effects of negative emotions. Positive emotions may indeed undo the lingering effects of negative emotions that narrow one’s thought-action repertoires. Fredrickson and her co-researchers had named it the undoing hypothesis (Fredrickson & Levenson, 1998). More recent research tends to support the notion that positive emotions may indeed act as a coping resource during periods of experienced stress and threat (Aspinwall, 1998; Folkman, 1997; Folkman & Moskowitz, 2000; Reed & Aspinwall, 1998; Trope & Pomerantz, 1998). The undoing hypothesis predicts that positive emotions will restore autonomic quiescence (physiological undoing) following negative emotional arousal, as well as restore flexible thinking following negative emotional experiences. This should contribute to higher levels of efficiency and may in turn build ego-strength and resilience.

Positive emotions may protect health. Fredrickson (1998) predicts that, in the event of positive emotions undoing the lingering consequences of negative emotions, they may shorten the damaging impact of such reactivity on the cardiovascular system. Studies that investigated the relationship between positive affective states and health also found correlations between positive mood and immune functioning (Stone, Cox, Valdimarsdottir & Jandrof, 1987; Stone, Neale, Cox & Napoli, 1994). This creates the possibility of greater control over well-being and physical health via the purposeful cultivation of positive experiences.

Positive emotions fuel psychological resilience. Fredrickson and Joiner (2002) argued that people may improve both physical health and psychological well-being by cultivating experiences to positive emotions for coping with negative emotional experiences. Data provided suggests positive emotions not only reflect but also build psychological resilience and trigger upward spirals toward improved emotional well-
being (Fredrickson, 2001). The theory proposes that the positive emotions broaden the scope of attention and contribute to more flexible and creative thinking, they may simultaneously augment individuals’ coping resources (Aspinwall, 1998; 2001; Isen, 1990). It furthermore seems as if resilient individuals expertly access and apply the undoing effect of positive emotions. In this regard, Folkman and Moskowitz (2000) identified several kinds of coping that may generate positive affect when stressful situations are encountered. These include infusing ordinary events with positive meaning, problem-focused coping, and positive reappraisal of the stressful encounter. This strongly reminds one of principles applied during rational emotive therapy (Ellis, 1969). Since the theory is relatively new, many questions for refutation or support exist, such as whether resilient individuals’ broadened thinking assists them to find positive meaning in adversity. Experiences of positive emotions appear to be critical and active ingredients that buffer resilient people from depression in the aftermath of crises. Fredrickson and Joiner (2002) found evidence for an upward spiral, in that individuals experiencing more positive emotions became more resilient to adversity over time and bale to made use of more broad-minded coping. This in turn, predicted increments in positive emotions with the passage of time and it seems then as if “positive emotions and broad-minded coping mutually build on one another” (P. 172). And “also build their coping arsenal for handling future adversities” (P.175). By contrast, Peterson and Seligman (1984) documented a downward spiral in which negatives/depressed mood and depression (Aspinwal, 1998; 2001).

To sum up, Fredrickson’s (2001) Broaden-and-Built theory advocates and provides substantive evidence for the role of positive emotions. Although only fleeting positive emotions may produce long-lasting effects and may indeed provide a vehicle for growth and development. This argumentation renders support to claims made on behalf of the emotional intelligence construct assumed to promote a positive affective climate in organizations (Bennet-Goleman, 2002). Therefore, in the light of the hypothesized Broaden-and-Build effect of positive emotions, the researcher wishes to examine the possible effect of emotional intelligence in creating a context for the experiencing of more positive affect, and whether this indeed contributes to the work well-being of employees.
EMOTIONS IN THE WORK PLACE

Piralo-Merlo, Hartel, Mann and Hirst (2002) argue that progress in the understanding of organizational behavior is hampered by a failure to consider the bounded emotionality aspects of human behavior in addition to bounded rationality aspects. On a theoretical level Muchinsky (2000, P.801) purports: “The specialized field of industrial organizational (IO) psychology has generally followed the path of its parent discipline psychology in its neglect of emotions.” This short overview mirrors business practices since business schools and organizations emphasis technical rather than social skills. Emotions are at the very core of human experience and –since we spend most of our time engaged in working rather than in other activities- IO psychology should take the lead in explaining the role of emotions at work (Muchinsky, 2000). However, the last few years of the past decade reflects widespread interest in the role of emotion at work, as represented in numerous workshop and conferences on the topic.

The organization by which people are employed offers opportunities or experiencing numerous emotions affecting the employees’ thoughts, feelings, and actions, both in the work place and when they are away from it (Brief & Weiss, 2002). The centrality of these emotions to work life have, however, largely been ignored and not openly discussed (Weiss & Cropanzano, 1996). Burke, Brief, George, Roberson, and Webster (1989) and fisher (2000) concur that there are relatively few studies on emotions experienced at work and the influence of the work context on affective experiences largely unexplored. Traditionally, potential dysfunctions rather than functions of everyday emotions received more attention from managers and researchers (Ashforth & Humphrey, 1995). This pejorative view of emotion has blinded many scholars and practitioners to the value of emotions. When research was conducted on emotion, it mostly related to strong emotions at work focusing on relatively dramatic occupations such as health care, police and rescue workers, rather than on the applicability of emotions and emotional regulation to the broader organizational setting.

HISTORICAL ROOTS OF EMOTIONAL INTELLIGENCE (EI)

Although EI recently received an increased amount of attention, the relationship between cognition and affect has been discussed for centuries. Dating as far back as ancient Greece and Rome, philosophers have debated the relationship between cognition
and emotion. Some critics believed that affect and strong emotions associated with weakness and irrational thoughts (Grewal & Salovey, 2005). Stoics, for example, believed that one must avoid extreme emotions in order to think reasonably and rationally (Still & Dryden, 1999). Conversely, philosophers such as Plato and Aristotle believed that thought plays a significant role in the expression of human emotion. They believed that emotion results from one's thoughts and beliefs about the world (Fortenbaugh, 1975). For example, an individual may experience fear only if they appraise the situation as dangerous. Similar discussions relating to the relationship between cognition and emotion continue in modern thought and psychological research, exploring new perspectives on the interaction between emotion and thought, and seeking rules to describe when and why emotions arise (Mayer, Salovey, & Caruso, 2002).

The term “intelligence” first presented in literature during the twentieth century (Spearman, 1927). Prior to that period, even books of good standing on psychology did not mention the word. Psychologists have ever since tried to successfully define intelligence. Sadock and Sadock (2000, P.684) defines intelligence as the “Capacity for learning and ability to recall, integrate constructively and apply what one has learned; the capacity to understand and think rationally”. This capacity was, traditionally measured and expressed as an “IQ” or intelligence quotient. However, as early as 1920, Thorendike (as quoted by Hedlund & Sternberg, 2000) already argued in favor of social ability as an important component of intelligence. He defined social intelligence as the ability to act or behave wisely in relation to others and distinguished social intelligence from the mechanical and abstract forms of intelligence. The study of emotional intelligence really originates with the writings of Wechsler (1940) who referred to the non-cognitive intellective aspects of general intelligence. He subsequently defined intelligence as “The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his/her environment” (Wechsler, 1958, P.7). This concept clearly involves more than mere cognitive intelligence and implicates those abilities required to adapt to new situations and cope successfully with life. He held the opinion that these factors, undeniably, contribute to intelligent behavior. He argued that “we cannot expect to measure total intelligence until our tests also include some measures of the non-intellective factors (Wechsler, 1943, P.103). These early thoughts were succeeded by the
ideas of Gardner (1983, 1993, and 1999) half a century later. He proposed a theory of multiple intelligences that included, in addition to the recognized cognitive intelligences, kinesthetic, practical, musical and personal intelligences, thereby expanding on Wechsler’s concept of general intelligence. He conceptualized the personal intelligences as an intra psychic capacity and on interpersonal skill. According to Gardner, intrapersonal intelligence constitutes the ability to understand oneself, including knowing how one feels about things and understanding one’s range of emotions. As well as having insight into the way one acts. Intrapersonal intelligence assists one to act in ways that are appropriate to one’s needs, goals and abilities. Interpersonal intelligence, conversely, includes the ability to read moods, desires and intentions of others and to act on this knowledge. Of late, the concept of EI emerged, adding depth to the concept of human intelligence in an attempt to expand the ability to evaluate overall intelligence (Bar-On, 1997). He contends that general intelligence may be conceived of as including both cognitive and emotional intelligence and views the personal intelligence as the precursor of emotional intelligence. EI refers to the emotional, social, personal, and survival dimensions of intelligence, rated by some as more important for daily functioning than the renowned aspects of cognitive intelligence. Stemming from earlier conceptions, emotional intelligence aims at understanding and relating to the self and others and coping successfully with the immediate context. According to Bar-On, emotional intelligence is tactical and aimed at immediate functioning, whilst cognitive intelligence is more strategic, with long term capacity. Emotional intelligence reflects one’s ability to manage the immediate situation successfully by applying available knowledge. EI thus measures a person’s “common sense” and ability to adapt to the demands of the world.

EMOTIONAL INTELLIGENCE AS ZEITGEIST

The phenomenal interest to the concept of emotional intelligence occurred against the longstanding tension in Western thought between emotion and reason. Emotional intelligence glued these two terms, (considered an oxymoron by some), since emotions were traditionally viewed as unreasonable (Salovey & Mayer, 1990). A second tension in Western thought comprised egalitarianism and elitism. Concomitant with the popularization of emotional intelligence, The Bell Curve (Hernstein & Murray, 1994) was published, arguing the importance of IQ for attaining particular levels of social class
(and therefore success) in American and other societies. Whilst Herrnstein and Murray’s arguments were widely opposed as elitist, opponents viewed Goleman’s “Emotional Intelligence” as an egalitarian movement, and rebuttal of the assumptions in The Bell Curve (Mayer, Salovey & Caruso, 2000). These two approaches are briefly considered.

**EMOTION VERSUS REASON**

Respect for or denial of emotions has an extended history in Western thought. Within Stoic philosophy the wise did not admit to emotion or feeling but willed it away via self-control to retain only rationality and logic, an heirloom of Western civilization and Christianity (Payne, 1986). However, this view slowly came under scrutiny and by 1960 North America and Europe began to rebel against the forces of rationalism. This coincided with the coming of age of many current-day researches on emotion and intellect. Against the rise of humanistic psychology, longstanding psychological truths were confronted and contradicted and emotionality became tied to personal growth. The Humanistic movement in psychology propagated, for example, that a basic human need is “to feel good about oneself, experience one’s emotions directly, and grow emotionally” (Herman, 1992, p.88). In contrast to the prevailing traditional paradigm where the more emotionally inclined individual was frequently regarded as mentally ill, the emotional intelligence constructs attempts to integrate emotion and thought. Recent research clearly indicates that the cognitive and emotional systems in the brain are much more interrelated than previously believed (Damasio, 1994; LeDoux, 1994).

**EGALITARIANISM AND ELITISM**

Goleman (1995) argued that emotional intelligence may exceed on IQ as a success tool and that emotional competencies can indeed be learned. Therefore, since EI is by nature egalitarian and therefore different from IQ, it has zeitgeist value since it reflects something of the spirit of the present time.

**THE NON-INTELLECTIVE INTELLIGENCES**

According to Strenberg (1985, 1997), emotional, social, practical intelligence and the likes are referred to as the non-academic or non-cognitive intelligences (Bar-On, 1997); or the non-intellectual intelligences (Wechsler, 1940).

**SOCIAL INTELLIGENCE**

Thorndike’s (1905) “Law of Effect” was influential in regard to the social intelligence perspective. For him, the focus fell less on the behavior itself than on the
effect it was designed to create. Kelly (1955) proposed that people's anticipation of
events, or expectations, are central to determining their behavior. His model is essentially
cognitive and emphasizes expectations, interpretations, and "personal constructs" or
schemas that inform people's understanding of how the world works. Rotter (1966, 1975)
emphasized people's perception of opportunities. Individuals both influence and are
influenced by their environment. Social intelligence therefore assumes people are
knowledgeable about themselves and the social world in which they live. They apply this
knowledge in order to manage their emotions and direct their behavior toward desired
outcomes. Cantor and Kihlstrom (1987) initially proposed that social intelligence forms
the cognitive basis of personality and comprises the cognitive processes distinguishing
individuals' approaches to problem solving in their every day lives. In addition, Cantor
and Harlow (1994) hold the opinion that intelligent behavior displays insight into the
consequences of actions for successful and flexible pursuit of goals. Kihlstrom and
Cantor (2000) studied the role of social intelligence as applied to managing life tasks
including, inter alia, making friends, finding a spouse, establishing a career, and
achieving good grades. They discovered that socially intelligent people tend to develop
specific action plans; they monitor their progress, and then evaluate the outcomes of their
actions. The socially intelligent people are flexible and may alter their plans when
obstacles hamper their attainment of their goals. The researchers could not yet determine
with certainty that social intelligence is distinct from academic intelligence. This may, in
part, be attributed to the variety of ways in which social intelligence has been defined and
measured, a problem that seems to repeat in the EI literature. Social intelligence has been
characterized as social perception, social knowledge, social insight, empathy, social
memory, social adaptation, and social behavioral effectiveness. More than 40 different
instruments have been developed to date (Zirkel, 2000).

PRACTICAL INTELLIGENCE

Sternberg (1985, 1997) argued that practical intelligence is the key to successful
intelligence. Successfully intelligent people are able to recognize and capitalize on their
strengths to solve practical problems whilst compensating for weaknesses. Practical
intelligence allows an individual for adapting to the environment; shaping (or changing)
it; or even for selecting a new environment in an attempt to attain personally valued
goals. A number of researchers have demonstrated practical intelligence to be distinct from academic intelligence (Sternberg, Wagner & Okagaki, 1993; Sternberg, Wagner, Williams & Horvath, 1995; Sternberg et al. 2000). Research on both practical and emotional intelligence has a more limited history than social intelligence. Wagner and Sternberg (1986) argue that individuals adept at solving academic problems are not necessarily equally adept at solving the practical problems.

Grigorenko and Sternberg (2000) established that practical intelligence consistently predicts a range of self-reported one’s adaptive functioning skills. Higher practical intelligence associated with better physical and mental health. The procedural (passive/tacit) knowledge acquires in everyday life (usually not taught and often not even verbalized) typically includes three features. Generally, it

• is acquired on one’s own with little support from the environment (through personal experience rather than through instruction);
• is procedural in nature (associated with particular uses in particular situations), and
• has value in assisting one to pursue one’s personal goals.

Tacit knowledge also appears to be distinct from personality variables. Furthermore, research on age-related patterns of intellectual development suggests a distinction between practical and academic abilities. Age-related changes in intellectual performance are, typically, distinguished via fluid and crystallized abilities (Horn, 1994; Horn & Cattell, 1966). Fluid abilities are those required to deal with novelty whilst crystallized abilities represent accumulated knowledge. With an increase in age, Denney and Palmer (1981) found that performance in traditional academic tasks declined almost linearly from the age of twenty onward, whilst performance in practical tasks increased to peak in the forty- to fifty-year-old person, before starting to decline.

EMOTIONAL INTELLIGENCE

Emotional Intelligence (EI) is generally defined as the ability to use emotions to reason, problem solve, manage relationships, enhance thought, and succeed. Although some may argue that the concept of emotional intelligence is new, its origin is indeed well-imbedded in psychological thought over the past century. In the last two decades the concept of EI has received considerable attention in the social sciences as well as in the popular media. In fact, the American Dialect Society listed EI as one of the most useful

The term “emotional” in emotional intelligence refers to both mood and emotion. Scholars have long recognized the relevance of cognition to problem solving and leadership, whilst the relevance of emotion was traditionally discounted (Salovey et al., 2000). Since researchers studying the brain have more recently determined that emotion precedes or at least accompanies cognition, affect (both mood and emotion) has been recognized as a unique form of information that improves cognition (Dickman & Stanford-Blair, 2002; Zajonc, 1998). Individuals vary in their ability to take in and understand affective information. Strength in this ability has been labeled emotional intelligence (Salovey et al., 2000). The key difference between emotional intelligence and cognitive skills involves the integration of emotion with thoughts, enabling an individual to understand what others are feeling, while cognitive skills involves the integration, organization and ordering of thoughts (Goleman, 2001). Therefore, emotional intelligence essentially describes the ability to effectively join emotions and reasoning; using emotions to facilitate reasoning; and reasoning intelligently about emotions (Mayer & Salovey, 1997). Emotional intelligence, therefore, influences the extent to which peoples’ cognitive capabilities are informed by emotions and the extent to which emotions are cognitively managed. Furthermore, emotions are distinct from predispositions to experience certain kinds of emotions captured by the personality traits of positive and negative affectivity (George, & Brief, 1996; Tellegen, 1985).

Empathy is seen as fundamental to emotional intelligence and has been defined by Mayer and Salovey (1997, P.5) as “The ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth”. Wolff, Pescosolido, and Druskat (2002) viewed empathy as a seminal emotional intelligence ability and propose that it improves leader ability to perceive and understand both member and team emotion. It precedes and enables cognitive processes and skills by providing an accurate understanding of team and team
member emotions and needs. They further proposed that this emotional understanding improves cognitive skills, pattern recognition, and perspective taking. Perspective taking is defined as analyzing, discerning, and considering the merits of another’s point of view (Boland & Tenkasi, 1995) and consider the merits from his/her point of view. Emergent leaders were, for example, noted to be socially perceptive and skilled at recognizing and understanding the feelings and emotions of the member of their teams. This understanding augments a leader’s cognitive analysis and prioritization of issues facing by the team. The high quality cognitive analysis leads to skilled behavior (Wolff, Pescosolido and Druscat, 2002). These authors’ research supported the basic premise, namely, empathy that serves as a foundation for cognitions and behaviors that support leader emergence. Empathy also formed the foundation for the analytic skills of pattern recognition and perspective taking. Muchinsky (2000) believes that emotional intelligence may provide the long-sought missing link that will unite the ability and motivational or dispositional determinants of job performance. Accordingly, it is plausible that emotional intelligence assessment “…could become a staple of a personnel selection battery” (P.804). After a decade of recognizing the complexity of cognitive processes, the next decade may witness the recognition of emotional processes in personnel selection and job performance. The study of emotions and cognitions is important and should receive equal attention.

CONCEPTS RELATED TO EMOTIONAL INTELLIGENCE COMPETENCIES

SOCIAL COMPETENCE: according to Topping, Bremner and Holmes (2000, P.32), social competence is “the possession and use of the ability to integrate thinking, feeling and behavior to achieve social tasks and outcomes valued in the host context and culture”. Socially competent people select and control behaviors to apply in pursuit of any given objective either set by them, or prescribed by others, within a given context. Thus, within the work context, such an individual may be self-assertive without being aggressive, thereby regulating the environment to his/her advantage. Social competence is important since it is a factor in resilience and the socially competent and integrated individual seems more likely to withstand life stressors, and temptations such as involvement in self-damaging behavior including drug taking.
EMOTIONAL COMPETENCE: According to Saarni (2000, P.68), “emotional competence is the demonstration of self-efficacy in emotion-eliciting at social transactions” and “mature emotional competence, as defined here, assumes that be moral character and ethical values influence on one’s emotional responses in ways that promote personal integrity” (P.69). However, all individuals will at some stage experience some emotional incompetence when unprepared for or overextended within a particular social context.

THE ROLE OF THE SELF IN DEVELOPING EMOTIONAL COMPETENCE

According to Saarni (2000), the most important contributor to the development of emotional competence is the self (or ego identity). The self mostly becomes automated by adulthood. Neisser developed taxonomy of the self that fits well with the construct of emotional competence (Neisser, 1988, 1992; Neisser & Fivush, 1994). The taxonomy firstly consists of the ecological self (that allows for a bi-directional engagement with the physical and social environment). Behavior largely depends on what the environment allows and how the individual shapes/responds to his/her environment. The second component of the taxonomy is the extended self that taps into previous experience (schemas), helping the individual to adapt in a novel context. The third component, the evaluated self, feelings and values, and is important in relation to goal directed behavior. Individuals maneuver their interactions in order to seek out advantages for the self whilst attempting to avoid disadvantages. The ecological, extended and evaluative self-taxonomy promotes our understanding of functional interactions between individuals and their social and physical environments. This complex set of interactions to some extent explains why two people living in the same environment tend to interpret events distinctly and differently. Another powerful motivator of behavior is the feedback from others. Such feedback is internalized and contributes to self-beliefs and assists in the development of the capacity for self-evaluation. This helps regulate or monitor behavior according to others’ expectations of appropriate behavior (Harter, 1998; Kopp, 1992). Developmentally delayed children typically demonstrate a deficit in such self regulatory capacity (Kopp & Wyer, 1994). Therefore an individual may feel emotionally competent in many situations but incompetent in other areas. Since he/she is ill-prepared for that particular situation and has not yet developed the skills to cope within the particular
context. Furthermore, individuals tend to deceive themselves rather than to deal directly with their emotional incompetence. Self-deception seems to be an important mediator between affective dispositions or mood and individual's well-being (Erez, Johnson & Judge, 1995).

THE ROLE OF MORAL DISPOSITION AND DEVELOPMENTAL HISTORY

Goleman (2002) equates emotional intelligence to character. People who function adaptively and competently are on the emotional level invariable also live in accord with their moral disposition and therefore in accordance with concepts such as sympathy, self control, fairness, and a sense of obligation. As a social constructivist, Saarni views individuals’ emotional experiences as highly individualized. Emotional experience is dependent on the exposure to particular social environments, an individualized social history and the level of current cognitive development. Culture is also influential since individuals growth themselves in their cultural beliefs, attitudes and assumptions, most often communicated by means of narrative and discourse. Emotional experience is "saturated with nuance and context-dependent meaning, including the social roles we occupy, such as age and gender roles" (Saarni, 2000, P.73). She believes that one is instrumental in creating one’s own emotional experience, but this process is intertwined with one’s cognitive functioning and social experience.

CONSEQUENCES OF EMOTIONAL COMPETENCE

According to Saarni (2000), the consequences of emotional competence include an effective skill to manage one’s emotions (special in negotiating one’s way within interpersonal exchanges); a sense of subjective well-being, together with adaptive resilience when faced by stressful circumstances. When individuals acquire the skill of emotional competence, their behavior will mirror it.

MANAGEMENT OF EMOTION

Coping strategies are critical in managing emotions effectively. Children acquire socially desirable emotion scripts at the age of six to seven years. They learn knowledge for managing emotional expressive behavior when faced with challenging situations (Saarni, Mumme & Campos, 1998).

SUBJECTIVE WELL-BEING

Diener et al. (1999) contend that well-being includes a positive temperament; the ability to embrace optimism and likewise minimize negative, and to enjoy mutually
supportive relationships. In this regard, Saarni (2000) asserts that emotional competence or the capacity for emotional self-efficacy facilitates well-being, since it justifies one's emotional experience as worthy. Research has suggested that self-worth mediates both emotional and motivational systems so that positive self-beliefs are associated with positive affect and the pursuit of goals important to the self (Harter, 1999). High self-esteem thus functions as an optimistic buffer when things are going badly for a person since he/she can contextualize the event in time and space. Research has also demonstrated a link between self-control and basic skills of emotional competence. These include awareness and understanding of own emotions; the understanding and empathizing with others’ emotions; the access of and skill at using emotion words and emotion scripts, and the ability to cope with negative circumstances and negative emotions (Gottman, Katz & Hooven, 1997; Saarni, 1999). These competencies also form part of the emotional intelligence competencies.

RESILIENCE

According to Saarni (2000), an individual’s ability to act with emotional competence across a number of stressful experiences, demonstrates resilience. Resilience relates to the ability to recover quickly after having experienced some or other trauma. The construct is not unidimensional and some research has shown that repeated debilitating experiences can indeed erode protective influences and competent functioning in particular context (Luther, Doernberger, & Zigler, 1993). Children exposed to stressors in line with their coping capacity and pushed a little to meet emotional challenges, may demonstrate improved coping skills when confronted with future stressors. However, children chronically exposed to trauma and who experienced little or inconsistent social support from significant others will demonstrate vulnerability across many domains (Luther et al. 1993). Resilience therefore relates to emotional competence and basic social relationships that provide support.

THE DEVELOPMENT OF EMOTIONS INTELLIGENCE

According to Lane (2000, p.186), “Healthy individuals spontaneously model and respond to the mental states of other people (their knowledge, intentions, beliefs, and desires) to guide their own interpersonal behavior. The ability to make inferences about what is going on in another person’s mind is a cognitive skill called theory of mind”.

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ability is therefore essential for any form of EI. Attention now turns to aspects supportive of the normal development of EI before the abnormal development of EI is highlighted.

HEALTHY DEVELOPMENT OF EI

Neurological substrates in support of EI first receive attention, since research in the emerging field of affective neuroscience (Davidson, Jackson, & Kalin, 2000) offers an interesting view of neural substrates supportive of an EI-based range of behavior.

NEUROLOGICAL SUBSTRATES OF EI

Emotional intelligence is indeed essentially about emotions and the concept of emotional intelligence finds its foundations in “the modern understanding of the role of emotional circuits in the brain” (Ashkanasy & Daus, 2005, p.445). It is grounded in theories of emotion and is distinct from social and spiritual intelligence. According to Goleman (2001), an understanding of the neurological substrates underlying EI competencies has critical implications for how people can best acquire and develop strengths within the EI range of competencies. He posits that EI competencies may be conceived of as constituting four domains, two with a ‘self’ or personal competence focus and two with an ‘other’ or social competence focus. He argues that each of the four domains of EI derives from “distinct neurological mechanisms that distinguish each domain from the others and all four from purely cognitive domains of ability” (p.29). Affective neuroscience seems to indicate that, “the defining boundary in brain activity between emotional intelligence and cognitive intelligence is the distinction between capacities that are purely (or largely) neocortical and those that integrate neocortical and limbic circuitry” (Goleman, 2001, p.30). Traditional IQ abilities (verbal fluency, spatial logic, and abstract reasoning) are primarily based in specific areas of the neocortex. Damage to these areas influences the corresponding intellectual ability. In the case of emotional intelligence, the underlying neurological circuitry primarily links the limbic areas for emotion (including the amygdala and its extended networks throughout the brain) to areas in the prefrontal cortex or the brain's executive centre, Davidson, Jackson, and Kalin, (2000) indicate key components of this circuitry as the dorsolateral, ventromedial, and orbitofrontal sectors of the prefrontal cortex. According to Goleman (2001), this circuitry is essential for the development of skills in each of the four main domains of emotional intelligence. It was found that lesions in these areas produce
deficits in the abilities of emotional intelligence, namely Self-Awareness, Self-Management (including motivation), Social Awareness skills such as Empathy and Relationship Management, similar to lesions in discrete areas of the neocortex selectively impairing aspects of purely cognitive abilities such as verbal fluency or spatial reasoning (Damasio, 1994, 1999).

THE ROLE OF THE PRIMARY CAREGIVER

The infant’s healthy emotional development is strongly dependent on the emotional state of the mother/caregiver (Goldberg, MacKay-Soroka, & Rochester, 1994). Of equal importance are the ability of the caregiver for reflective self-awareness and the ability to transmit this capacity to the infant. Fonagy et al. (stated by Taylor & Bagby, 2000), for example, found that both fathers and mothers exhibiting a self-reflective capacity had a three to four times greater chance of having securely attached children. Whilst the caregiver’s emotional interactions influence the development of certain mental capacities in the infant, evidence is mounting that the caregiver also exerts “a regulatory influence on the maturation of parts of the brain that are involved in emotional awareness and emotion regulation” (Taylor & Bagby, 2000, p.3). According to Schore (1994), it is possible to reliably identify an infant’s attachment style at approximately one year of age. This corresponds with a critical time in the maturation of the prefrontal cortex and more specifically the orbital area of the prefrontal cortex. Maturation of this area occurs in phases and “depends on high levels of neurotransmitters that are released in the infant’s forebrain by the emotion laden interaction with caregivers”. Schore (1994, 1996) suggests that the failure to regulate excessively high (negative) or low emotional arousal may contribute to permanent alterations in the morphological development of the orbito-frontal cortex. This includes, for example, the pruning of descending neural pathways reducing the ability of the cortex to regulate excitatory processes in the amygdala and related structures. The orbito-frontal area is intimately connected with the amygdala and other parts of the limbic system involved in affect regulation, appraisal, directed attention, and the processing of nonverbal emotional signals, a prerequisite for initiating attachment behaviors (Schore, 1996). Attachment behavior is of importance in regard to establishing significant interpersonal relationships in adulthood. Next, the role of emotional awareness in support of the normal development of EI is examined.
DEVELOPMENT OF EMOTIONAL AWARENESS

The ability to be aware of one's own emotional states, constitutes a skill fundamental to the key features of emotional intelligence and relates to impulse control, persistence, self-motivation, empathy, and social deftness. "Emotional awareness is conceptualized as a domain of cognitive development that unfolds in a manner parallel to that of intelligence in the usual cognitive sense" (Lane, 2000, p.186). Lane and Schwartz (1987) proposed that this developmental process is similar to that which Piaget described for cognition in general. A fundamental principle of this approach is that variations (in the degree of differentiation and integration of the schema applied to process emotional information), will be reflected in individual differences in levels of emotional awareness. These authors proposed that there are five levels of emotional awareness and they share the structural characteristics of Piaget's stages of cognitive development. In ascending order, these represent physical sensations; action tendencies; single emotions; blends of emotions, and blends of emotional experience. These levels influence the ability to recognize complexity in the experiences of the self and others and to use this information as a guide in order to act adaptively. Another influential aspect in the normal development of EI is language.

THE ROLE OF LANGUAGE IN EMOTIONS

Taylor and Bagby (2000), Piaget (1981), Krystal (1974), and Lane and Schwartz (1987), in attempting to conceptualize stages in the normal development of representations of emotions, proposed that the acquiring of progressively complex language skills link with the developing of increasingly complex cognitive schema. These schema "gradually elevate the conscious experience of emotions from an awareness of peripheral manifestations of emotional arousal only (namely, undifferentiated bodily sensations and/or a tendency to action) to an awareness of blends of feelings, an ability to make subtle distinctions between nuances of emotions, and a capacity to appreciate the emotional experience of others".

This perspective is informed by the work on symbol formation by Werner and Kaplan (1963). They aver that things in the world become known to an observer by virtue of the way in which they are represented symbolically. This perspective is consistent with Karmiloff-Smith's (as stated by Lane, 2000) - successor of Piaget - who propagates that
cognitive development (in different domains of knowledge) develops through a process she named representational re-description. This assumes the transformation of knowledge from implicit (procedural, sensory-motor) to explicit (conscious thought) representations by means of the use of language or another symbolic mode. This renders thought more flexible, adaptable and creative. “Higher levels of representations of emotions in the working memory and associative memory systems not only enhance the conscious appraisal and self-regulation of states of emotional arousal (the latter via neural pathways from the prefrontal cortex and hippocampus to the amygdala) but also enable the person to intentionally communicate feelings to others via language and images” (Taylor & Bagby, p.52). Furthermore, symbolic imagery representing affective other-self interactions contributes to the development of memories, fantasies, and dreams that help in containing and modulating states of emotional arousal (Brown, 1993; Mayes & Cohen, 1992). Symbolic representation such as language is therefore a prerequisite for the normal development of EI.

THE ROLE OF EMOTIONAL AWARENESS IN SOCIAL INTERACTIONS

According to Baddeley and colleagues (as stated by Lane, 2000), successful social adaptation requires a dual task ability, namely to simultaneously consider one’s own and others’ needs. Optimal social adaptation requires an appreciation of the differentiated feelings of the self and others and to integrate this information into action that allows for attainment of personal goals in harmony with the social context (Lane, 2000). Emotional awareness has the potential to influence social interaction by means of modulating emotional expressions. Creating harmony between the changing demands of the social context and one’s emotional expression requires a high level of differentiation and complexity in expressive behavior. To access one’s own emotional life, monitor and modulate how it may be outwardly expressed and consider how a given display may be experienced by others, influences how emotion will be expressed. It is therefore predicted that higher levels of emotional awareness would potentially co-vary with greater appropriateness of emotional expression in social interactions. Higher levels of emotional awareness would underscore learning from the modeling of appropriate behavior or in emotional skills training. Lane (2000) predicated a cognitive-development approach, proposes five levels of interpersonal negotiation strategies. These five levels of
interpersonal negotiation strategies (in ascending order), may be described negotiation through:

- Physical force,
- Implicit power (threat or will power),
- Psychological power (persuasion),
- Interpersonal collaboration, and
- Integration and synthesis.

Each successive level is indicative of an increase in the degree to which the other individual is seen as separate, autonomous - yet interdependent – having needs, feelings, and rights that are as legitimate as the individual’s own.

To summarize, it is therefore important that a number of factors effectively interface to the normal development of EI. These include an intact neurological system, an emotionally effective caregiver, appropriate levels of emotional awareness and language abstraction, together with the dual task ability of simultaneously considering own and others’ needs. Attention now turns to factors impeding the healthy development of EI.

IMPACT OF CHILDHOOD TRAUMA AND ALEXITHYMIA ON ABNORMAL DEVELOPMENT OF EI

Research evidence demonstrates that the development of parts of the neocortex may be impeded by emotional trauma. Teicher, Ito, Glod, Schiffer and Gelbard (1996), investigating school-age children with histories of psychological, physical, or sexual abuse, found evidence of a greater prevalence of left-sided fronto-temporal electroencephalogram (EEG) abnormalities than in non-abused children, whilst a higher prevalence of right-left hemispheric asymmetries were also prevalent. Atypical development affecting cortical maturation and laterality was again demonstrated in children having experienced severe physical or psychological abuse (Ito, Teicher, Glod, and Ackerman, 1998). (Children having suffered head trauma were excluded from the study). Further studies using PET scans indicate possible abnormalities of the corpus callosum for traumatized children. It is therefore apparent that early childhood trauma may impede the normal development of EI.
Alexithymia construct is conceptually similar and overlaps to some extent, albeit inversely, with the emotional intelligence construct. Alexithymia (inversely) relates and exhibits considerable overlap with Gardner's (1983) conception of personal intelligences and more specifically the intrapersonal intelligence, particularly the ability to identify, label and discriminate among feelings and to represent them symbolically. According to Gardner (1983), the core capacity of intrapersonal intelligence involves the accessing of one's emotional life – one's range of affect or emotions: “the capacity to instantly effect discrimination among these feelings and, eventually, to label them, to enmesh them in symbolic codes, to draw upon them as means of understanding and guiding one's behavior” (p. 188). Conversely, the interpersonal intelligence ability to pick up on others’ feelings and to act sensitively in accordance is known as empathy. These two forms of intelligence flow from attending to one's subjective emotional experience. Interest in the alexithymia construct emerged against the backdrop of a number of researchers and psychotherapists (Horney, 1952; Kelman, 1952; Maclean, 1949 & Ruesch, 1948) noticing that a large number of patients, experiencing psychosomatic illnesses, responded poorly to insight-orientated psychotherapy; struggled to verbalize feeling; experienced a paucity of inner experience; had no interest in dreams; were unimaginative; concrete, and indulged in physical action to express emotion. Maclean and Ruesch attributed this behavior to a deficit in representing emotions symbolically. The patients furthermore often engaged in binge eating, alcohol abuse and other compulsive behaviors. In addition, Wurmser (1974) asserted that individuals addicted to drugs frequently have a deficit in verbal affective expression and imaginal capacity. He named this hyposymbolisation. According to Taylor and Bagby (2000), Sifneos (1973) coined the term “alexithymia” from the Greek a meaning lack, lexis meaning word, and thymos, meaning emotion, to denote this cluster of cognitive characteristics. Salient features of alexithymia including of, Difficulty in identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal, Difficulty in describing feelings to other people, Constricted emotional processes as evidenced in a paucity of fantasy, and a stimulus-bound, externally orientated cognitive style (Taylor & Bagby, 2000).
THE PSYCHOLOGY AND NEUROBIOLOGY OF ALEXITHYMIA

According to Taylor and Bagby (2000), theories attempting to describe individual variation in alexithymia or emotional intelligence have to consider variations in the level of complexity of symbolic representations of emotional states together with neural organization associated with working memory. Cognitive scientists and neuroscientists tend to consider working memory as “the basis of all conscious experience and part of an essential information-processing system that allows behavior to be guided by ideas, thoughts and other symbolic representations rather than by immediate emotional reactions to stimuli” (p.51). Language is instrumental in helping individuals to discriminate between different emotional states, as well as in considering the meaning of these subjective experiences. The ability to think about one’s thoughts and other mental experiences (meta-cognition) is possible via linguistic processing (Rolls, as stated by Taylor & Bagby, 2000). Goldman-Rakic (1994, p.354) contends that individuals with alexithymia are subject to the “tyranny of external [and internal] stimuli” since they cannot access imaginative fantasies and subjective feelings to guide behavior. They are frequently prone to an activated amygdala that goes unchecked by feedback from the consciously and unconsciously operating cognitive systems (LeDoux, 1986, 1998). Empirical studies (Taylor & Bagby, 2000) indicate that those experiencing alexithymia are more prone to both medical illnesses and psychiatric disorders in that emotions, including panic disorder, post traumatic disorder, substance use disorders, essential hypertension and functional gastrointestinal disorders, are poorly regulated. These researchers propose a model of alexithymia in which an inter-hemispheric transfer deficit reduces coordination and integration of the specialized functions of the two hemispheres so that individuals predisposed to the disease may, for example, react to the literal rather than the metaphorical meaning of words. They propose that emotional arousal (evoked by activation of the amygdala) probably goes unregulated for two reasons: “First, the unconscious inhibitory feedback from the orbitofrontal cortex to the amygdala is reduced because of an impoverished representational world that limits the ability of this part of the prefrontal cortex to perform a more detailed cognitive appraisal of complex emotional stimuli. Second, the limited ability to represent and contain emotions with words and fantasies and to reflect on their meaning, restricts the use of conscious cognitive
processes to modulate arousal by way of cortical-amygdala pathways” (Taylor & Bagby, 2000, p.55). These individuals, being unable to experience differentiated subjective feelings, will (when the amygdala is activated by emotional stimuli) be aware of uni-dimensional feelings or elementary and unorganized representations of bodily sensations together with impulses for action. Findings from developmental psychology, neurobiology and cognitive science, together with studies of attachment, seem to imply that individual differences in alexithymia (and presumably in emotional intelligence) may be found in early environmental influences such as the caregiver’s capacity for harmony, self-reflection, and the ability to contribute to secure attachment behavior of the child. Evidence is furthermore accumulating suggesting that extreme degrees of alexithymia may result from early trauma and emotional deprivation or neglect as discussed. These environmental influences appear to stunt the maturation of particular brain structures and mental capacities associated with emotional processing and emotional intelligence. It is furthermore important to note that repetitive, maladaptive behaviors (associated with a lack of emotional intelligence) represent explicit automated emotional reactions that are not associated with conscious emotional experience. If the emotional experiences associated with such behavior patterns could be brought into consciousness, it may be possible to identify the motivational origins of the behavior and then apply conscious cognitive mechanisms to change the behavior patterns (Clyman, 1991). It is therefore apparent that the bi-directional influence of environment and neurobiology determines the individual’s level of EI. Early environmental influences include the adequacy of the primary caregiver and other formative relationships, whilst later influences may include the adequacy of peer, hetero-/homosexual, marital, family and work relationships. In addition, adequate language ability was demonstrated to be a powerful influence in the establishing of EI. When an individual is exposed to a climate supportive of the development of EI, it is indeed possible (given the plasticity inherent in our neurology) for changes to take place in the individual’s level of EI. It is, however, important to consider early trauma that might have had an irreversible influence on the level of EI sensitivity.
EI AS A POPULAR CONCEPT

Goleman (1995) created a model of EI characterized by five broad areas: knowing one's emotions (recognizing and monitoring feelings), managing emotions (emotional regulation), motivating oneself (goal-oriented), recognizing emotions in others (empathic awareness), and handling relationships (managing the emotions of others). Goleman considered EI to encompass "a set of abilities which include self control, zeal and persistence, and the ability to motivate oneself". He further specified that EI consists of the ability to "motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and to empathize and to hope" (p. 34). Goleman (1998) later on broaden and described EI as including up to 25 skills and characteristics that promote success, such as initiative, teamwork, and self-awareness, and likened EI to individual character. Goleman (1995) made strong claims about the ability of EI to predict important real-life outcomes. In his book, Emotional Intelligence: Why It Can Matter More Than IQ, he contended that EI accounts for up to 80% of the variance in academic and occupational success. Goleman asserted that EI provides "an advantage in any domain in life, whether in romance and intimate relationships or picking up the unspoken rules that govern success in organizational politics" (p. 36). The influence of Goleman's book on popularizing EI became immediately apparent. It stimulated a great deal of research on EI, as evidenced by the competing theories of EI that emerged shortly after its publication. In addition, intervention and training programs were developed to provide parents with strategies to improve their children's EI, and some businesses hired EI coaches to enhance worker productivity (Grewal & Salovey, 2005). By 2000, over 20 formal programs of social-emotional learning were incorporated into school curricula (Elias et al., 2000).

Goleman was criticized by many researchers for his assertion that EI is a more important predictor of success than IQ without providing empirical support for these claims (Landy, 2005; Mayer & Cobb, 2000; Mayer, Salovey, & Caruso, 2004). For example, Goleman (1998) claimed EI has greater predictive validity for occupational performance than IQ. However, as Matthews et al. (2002) argued, no published studies actually confirm this relationship, and the unpublished investigation that Goleman cites does not actually include any measure of EI. Critics of Goleman also contended that his
definition of EI is over inclusive and unclear, incorporating aspects of cognition, personality, motivation, emotions, neurobiology, and intelligence (Locke, 2005; Matthews et al., 2002). In response to Goleman’s claims, Mayer, Salovey, and Caruso (2000) stated “the unexplained 80% of success appears to be in large part the consequence of complex, possibly chaotic interactions among hundreds of variables playing out over time” (p.325).

At present, the theoretical framework of EI is a topic of debate among researchers (Van Rooy & Viswesvaran, 2004). Mayer and colleagues made a distinction between two main competing groups of EI theories—mixed (or sometimes referred to as trait EI) and ability models (Mayer, Salovey, & Caruso, 2000).

MIXED MODEL AND THEIR MEASUREMENT

In mixed models, EI does not exclusively consist of emotion or intelligence (Neubauer & Freduenthaler, 2005). Instead, EI is seen as a mixture of cognitive abilities and personality traits that may predict success in various domains (Mayer et al., 2000). Although most mixed model of EI theories make reference to cognitive abilities utilized in the processing of emotional information, these theories focus more on personality traits and attributes such as optimism and motivation (Goldenberg, Matheson, & Mantler, 2006; Livingstone & Day, 2005).

Mixed models generally are measured by self-report questionnaires, which assess an individual’s beliefs about his or her competencies in areas of EI. Typically, respondents are given a series of statements regarding their emotional understanding, awareness, and control. They are then asked to indicate on a Likert scale the extent to which the statements describe how they feel, think, or behave in most situations. Authors of mixed model EI measures claim that they predict success and other important outcomes fairly well (Bar-On, 1997; Goleman, 1998; Schutte et al., 1998).

One of the most popular and widely cited Mixed Model of EI Theories is Bar-On’s model of Social – Emotional Intelligence (S-EI). In this theory, several interrelated emotional and social components that impact intelligent behavior and the ability to cope with the demands and pressures of daily life are combined. Bar-On noted the influence of related constructs in the development of his theory, including social intelligence and Gardner’s (1983) intrapersonal and interpersonal intelligences. S-EI consists of 15
competencies that measure five higher-order factors. The first, Intrapersonal Skills (comprised of Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualization), refers to the ability to recognize, understand, and express emotions. The second, Interpersonal Skills (comprised of Empathy, Social Responsibility, and Interpersonal Relationship), refers to the ability to understand the emotions of others. The third factor, Adaptability (comprised of Reality-Testing, Flexibility, and Problem-Solving), refers to the ability to handle change and solve problems. The fourth, Stress Management (comprised of Stress Tolerance and Impulse Control), refers to the ability to manage emotions. The fifth factor, General Mood (comprised of Optimism and Happiness), refers to the ability to generate positive affect and be self-motivated (Bar-On, 2005). To measure these constructs, Bar-On constructed the Emotional Quotient Inventory (EQ-i; Bar-On, 1997), a 133 items self-report measure. Of the existing EI measures, the EQ-i is among the most widely used (Van Rooy & Viswesvaran, 2004). According to Bar-On (1997), the EQ-i is predictive of success in academics and success among US Air Force recruiters. In addition, the EQ-i was found to moderately correlate with measures of psychological well-being, physical health, self-actualization, and social interaction (Bar-On, 1997, 2001, 2004, 2005; Bar-On & Fund, 2004). In an independent study using the Emotional Quotient Inventory: Youth Version (EQ-i:YV), Overall EI correlated significantly with academic success among a large sample of high school students (Parker et al., 2004).

Another one of the most popular and widely cited Mixed Model of EI Theories is Schutte’s et al. (1998) theory. It is largely based on Salovey and Mayer’s (1990) original model of EI, consisting of a general second-order EI factor as well as three first-order factors, namely, Appraisal and Expression of Emotion, Regulation of Emotion, and Utilization of Emotion. The Appraisal and Expression of Emotion factor is comprised of perception of emotion and empathy. Regulation of Emotion includes regulating emotions in the self as well as in others. The third factor, Utilization of Emotion, includes flexible planning, creativity, attention, and motivation (Schutte et al., 1998). To measure these components, Schutte and colleagues developed the Schutte Self-Report Inventory (SSRI; Schutte et al., 1998). The SSRI correlated moderately with alexithymia (i.e., difficulty describing and recognizing one’s own emotions), depression, and academic success.
Saklofske, Austin and Minski (2003) also found moderate correlations between the SSRI and alexithymia, self-reported happiness, satisfaction with life, depression-proneness, social loneliness, family loneliness, and romantic loneliness. These findings support the validity of the SSRI. As predicted by EI theory, a lower level of EI is associated with depression and loneliness.

The third one of the most popular and widely cited Mixed Model of EI Theories is Trait Meta-Mood Theory. Salovey et al. (1995) developed a theory to explain individual differences in meta-mood, or the process by which one responds to their emotional states (Fitness & Curtis, 2005). According to this theory, EI consists of three factors, including Attention to Emotion, Emotional Clarity, and Emotion Repair. Attention to Emotion refers to the awareness of inner feelings and emotions. Emotional Clarity refers to the ability to distinguish among different feelings and emotional states. Emotion Repair refers to the ability to regulate emotions and repair negative emotional experiences. The Trait Meta-Mood Scale (TMMS; Salovey et al., 1995) was developed to measure these three factors. Unlike most EI measures, the TMMS does not yield an overall EI score. Martinez- Pons (1997) found evidence for the three-factor model of the TMMS. However, in a study using exploratory factor analysis (with Oblique rotation), Palmer, Gignac, Bates, and Stough (2005) found that three and four-factor solutions of the TMMS were proper models. Palmer et al. (2003) asserted that these differences result from cultural differences between samples, as the participants in Martinez-Pons’ study were from the USA and theirs were from Australia. Thus, the theory is problematic. Salovey et al. (1995) found that the TMMS correlated with criteria such as depression, optimism, locus of control, mood recovery, and goal orientation. Among a sample of undergraduate students, Fitness and Curtis (2005) found that Attention to Emotion was moderately correlated with self-reported measures of empathy and the ability to use complex reasoning when thinking about other’s behaviors. A self-report measure of self-control correlated positively with Emotional Clarity and Emotion Repair. They also found that destructive, maladaptive responses to interpersonal conflict were negatively associated with Emotional Clarity and Emotion Repair. However, constructive responses were not significantly associated with the TMMS.
The fourth one of the most popular and widely cited mixed Model of EI Theories is Emotional Competence Theory. Goleman, Boyatzis, and Mckee (2002), extending upon Goleman’s (1998) earlier theoretical model of EI, presented a model consisting of 18 competencies that comprise four clusters: (1) Self-Awareness, (2) Self-Management, (3) Social Awareness, and (4) Social Skills. According to their theory, EI is a set of competencies that promotes understanding of emotional information and leads to improved performance (Boyatzis & Sala, 2004). To measure these competencies, Sala (2002) developed the Emotional Competence Inventory-Version 2 (ECI-2). The ECI-2 is a 72-items self-report EI measure which incorporates self-report and manager and peer ratings to measure emotional competencies related to EI. A number of studies have found that the ECI-2 is predictive of job performance and success, salary increases, managerial styles and organizational climate (e.g., Boyatzis & Sala, 2004; Cavalo & Brienza, 2002; Nel, 2001; Sevinc, 2001; Williams, 2003). However, most of the cited empirical studies evaluating the ECI-2 are only available in technical reports, unpublished manuscripts, and working papers (Matthews et al., 2002). Conte (2005) argued that, because most of these studies have not appeared in published scientific journals or been subjected to blind peer-review, the ECI-2 does not deserve serious consideration.

THE MIXED THEORIES OF EI CRITICISED BY RESEARCHERS

Critics of mixed model of EI theories argued that incorporating qualities such as motivation, optimism, empathy, and other traits into a single psychological entity called EI is problematic (Mayer et al., 2000). They maintain that, although studying these variables together may provide useful information, referring to them all as components of EI implies that they come together as a unitary concept when they may be separate entities (Mayer et al., 2000). In other words, mixed models may simply be using the phrase EI to re-label a collection of unique validated personality constructs (Mayer, 1999).

Another criticism of mixed model theories focuses on their methods of measurement. Although self-report measures are generally more convenient to administer, several major criticisms have precluded their acceptance. A ubiquitous criticism for most self-report measures concerns the inaccuracy of the estimation of the rate of abilities (Brackett & Mayer, 2003). For example, correlations between scores on
standardized IQ tests and self-reported intelligence are moderate at best, with a mean correlation of 0.34 (Furnham & Chamorro-Premuzic, 2005; Mabe & West, 1982; Paulhus, Lysy, & Yik, 1998). Thus, self-report measures do not accurately provide an unbiased, objective view of actual behavior. In addition, many argued that respondents produce biased responses when reporting on their experiences (Greenwald & Banaji, 1995; Stone & Shiffman, 1994). Although the accuracy of self-ratings of EI is unclear, asking an individual to assess their own EI may be a poor indicator of their actual EI.

A final criticism of mixed model theories of EI concerns the fact that scores on most self-report measures of EI overlap substantially with measures of personality. Davies, Stankov, and Roberts (1998), for example, conducted a series of studies examining the relationship between self-report EI measures and personality variables among undergraduate students. They administered 13 different self-report EI measures along with seven different measures of personality and anxiety/depression. Among the self-report EI measures administered, all correlated significantly with the various personality traits. Therefore, Davies et al. (1998) contended that EI, as measured by self-report, may simply be an indicator of personality traits. These results led to questions about the appropriateness of labeling these tests as measures of EI (Neubauer & Frewenthaler, 2005). According to Mayer, Salovey, and Caruso (2004), mixed models “often have little or nothing specifically to do with emotion or intelligence and, consequently, fail to map onto the term emotional intelligence” (p. 197).

Several empirical studies have further investigated the association between several widely used self-report EI and personality measures (Dawda & Hart, 2000; Hedlund & Sternberg, 2000; Newsome et al., 2000; Petrides & Furnham, 2000, 2001; Saklofske et al., 2003; Van Rooy & Viswesvaran, 2004; Warwick & Nettelbeck, 2004). Each of these studies found substantial overlap between self-report EI and personality measures. This is somewhat expected considering the inclusion of such variables as empathy and motivation in several mixed model theories, which coincide with components of the personality domain. Given these criticisms and apparent shortcomings, Conte (2005) argued that mixed models are not as viable as ability models. As a result, the predominant theories are ability models of EI. Among them, Mayer and Salovey’s (1997) model is generating the most research.
ABILITY MODELS OF EI

Salovey and Mayer (1990) proposed a hierarchical model in which EI consists of Appraisal and Expression of Emotion, Regulation of Emotion, and Utilization of Emotion. Their conceptualization of EI was strongly influenced by the movement to broaden the construct of intelligence (Mayer, Salovey, & Caruso, 2004). They did not necessarily assume that EI is fundamentally independent from g (general ability); rather, they described EI as another way to measure intelligent behavior (Landy, 2005). Mayer and Salovey (1997) later revised their model and developed a four-branch hierarchical model to isolate EI as a mental ability and separate it from well-known personality traits (Neubauer & Freudenthaler, 2005). They asserted that people think intelligently about emotions and that those emotions can facilitate intelligent thought. In particular, their interest lies in understanding individual differences in the processing of affective information. They defined EI as a collection of abilities that combine to form four oblique first-order factors, or branches: (1) Perceiving, Appraising, and Expressing Emotions; (2) Using Emotions to Facilitate Thought; (3) Understanding Emotions; and (4) Managing Emotions. The first branch, Perceiving, Appraising, and Expressing Emotions, refers to how well individuals identify emotions and emotional content. In other words, an emotionally intelligent individual should be able to distinguish among facial and postural expressions of emotion, identify their own bodily sensations, and monitor internal feelings. Additional emphasis is placed on recognizing emotions and feelings in other people as well as oneself. Finally, this branch refers to the ability to express feelings accurately through the face, voice, and related communication channels (Mayer et al., 2004). The second branch, Using Emotions to Facilitate Thought, refers to the ability to effectively use feelings and emotions to assist thinking. An emotionally intelligent individual generates specific emotions to support problem solving. It further includes the ability to use emotions to bring attention to important events to harness emotions for more effective and rational decision making (Salovey & Pizarro, 2003). The third branch, Understanding Emotions, involves the ability to understand complex emotions and the similarities and differences between them (e.g., liking vs. loving, annoyance vs. anger, etc.). An emotionally intelligent individual can comprehend emotion within the context of relationships (e.g., sadness often accompanies a loss; anger often accompanies an
argument) (Caruso, Mayer & Salovey, 2002). In addition, emotionally intelligent individuals can understand complex feelings, such as simultaneous feelings of love and hate, or recognizing the combination of fear and surprise as awe (Neubauer & Freudenthaler, 2005). The fourth branch, Managing Emotions, refers to the ability to be aware of one’s emotions. Emotionally intelligent individuals can recognize negative emotions without repressing them. Perhaps more adaptive is the ability to regulate emotions, and rather than act hastily on them, harness the emotional experience as motivation in the future. The four branches further combine into pairs to form two oblique second-order factors; Experiential EI and Strategic EI. Experiential EI represents the ability to accurately perceive, respond to, and manipulate emotional information without necessarily understanding it (Mayer et al., 2002). This factor is derived from the Perceiving, Appraising, and Expressing Emotions and Using Emotions branches. Strategic EI represents the ability to understand emotions and use them strategically for planning and self-management (Mayer et al., 2002) and is derived from the Understanding Emotions and Managing Emotions branches. These second-order factors combine to yield a unitary third-order factor, Overall EI.

MEASUREMENT OF ABILITY MODELS OF EI

In light of the psychometric and theoretical issues surrounding the use of self-report measures, many researchers have focused their attention on measures predicated on the ability model of EI, or ability measures (e.g., Caruso, Mayer, & Salovey, 2002; Mayer, Caruso, & Salovey, 1999, 2000; Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2000; Mayer, Salovey, Caruso, & Sitarenios, 2003). Mayer (2001) contends that, because g (general ability) is typically measured by ability measures, so too should the construct of EI for it to fall within the domain of intelligence. Mayer and colleagues assert that ability measures are better indicators of one’s maximal EI performance, and that they most directly operationalize EI as a cognitive ability. At present, few ability measures exist. Among them, fewer still have evidence substantiating their reliability or validity. For example, the Emotional Intelligence Scale for Children (EISC; Sullivan, 1999) is not commercially available, in part due to difficulties establishing the validity and reliability of the scale. The Emotional Accuracy Research Scale (EARS; Mayer & Geher, 1996), which was developed to measure the identification of other’s emotions,
demonstrated poor reliability as well as small and unstable relationships with external criteria. The ability measure with the most empirical support is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2002).

**RELATIONSHIP OF EI WITH AGE AND EXPERIENCE**

Intellectual capacities improve with age (Fancher, 1985). Therefore, Mayer et al. (1999) claimed that, if EI is a cognitive ability, it should vary with age, improving from childhood unto adulthood. Mayer and colleagues found support for this hypothesis. Individuals ranging in age from 18 to 24 years scored significantly lower, on average, than older groups (> 25 years) on Overall EI and three of the four first-order factors on the MSCEIT (Mayer et al., 2002). Goldenberg et al. (2006) also found a positive and significant relationship between age and Overall EI, Managing Emotions, and Understanding Emotions on the MSCEIT. According to their theory, EI is expected to increase with experience as well (Roberts, Zeidner, & Matthews, 2001). For example, college students' critical thinking ability has been found to change significantly with each year of college (Berger, 2005; King & Kitchener, 1994; Pascarella, 1999; Perry, 1981). Students in higher education typically develop the ability to identify and evaluate sources of information, think critically, problem solving, and effectively communicate their ideas (Miller & Winston, 1990). For example, in a group of college and non college students matched on age, those attending college scored higher in critical thinking after one year (Pascarella, 1999). Thus, some have argued that the college experience itself is largely responsible for these changes in cognitive, moral, and psychosocial development (Pascarella & Terenzini, 2005; Perry, 1981). In other words, certain experiences, such as years in formal education, may lead to increases in EI. Day and Carroll (2004) found that years in college correlated significantly and positively with Managing Emotions, Using Emotions, and Perceiving Emotions on the MSCEIT. Goldenberg, Matheson, and Mantler (2006) also found that years of education correlated significantly and positively with Overall EI, Managing Emotions, and Understanding Emotions.

**STRESS – CONCEPT AND ORIGINS**

The origin of the term “stress” can be traced back to the fourteenth century as a non-technical term to refer to the hardship or adversity. In the late seventeenth century, physicist Robert Hooke formulated an engineering analysis of stress (Lazarus, 1999).
Hooke analyzed how to design bridges to carry heavy loads. Hooke used the concepts of load (external forces), stress (the area where the load is applied), and strain (the deformation of the structure caused by the load and stress). This model greatly influenced the formulation of stress theory as we know it. Interest in the topic of psychological stress rose after the two world wars, especially in the late 1940's (Lazarus, 1999). A large number of soldiers exposed to battle conditions developed symptoms of stress, ranging from mild anxiety to more debilitating disorders. As research in the field of psychology progressed, there was an evolution of understanding the disorders associated with battle stress. The emotional problems that developed were presumed to be due to stress. Terminology developed from the “shell shock” of World War I, to the “combat fatigue” of World War II, and “post traumatic stress disorder” of the Vietnam War (Lazarus, 1999). From World War I through the Vietnam War, military laboratories conducted research to understand the basics of how stress works. These findings fueled the growth of the stress in industry. Military psychology research was implemented in the 1940’s by the U.S. military to learn two things. First, the military wanted to find out what kind of person would be resistant to battle stress. Second, psychologists wanted to know how to train people to cope with battle stress and its negative effects (Lazarus, 1999). After world war II, interest in stress spread from military concerns to our everyday lives. Heightened stress could be attributed to the technological advancements of the world that had changed the face of war. For the first time, anyone was a potential war victim. It was realized that stress was a problem in peacetime, in relationships, home, job, or school. Stress became a major topic in the social and biological sciences and knowledge about it spread by the media began to reach the public (Lazarus, 1999).

Stress research has developed in four different disciplines; medicine, sociology, management and psychology (Cummings & Cooper, 1998; stated by Austin, 2004). Each discipline has its own paradigm and research differences which lead to difficulties in comparing stress theories and research (Le Fèvre, Matheny & Kort, 2003). The term “stress” became a dominant term for research in areas that reflected the problems of daily life, such as anxiety, depression, frustration, alienation, and emotional distress (Lazarus, 1999).
Since Selye first used the term "stress" there has been confusion and debate about its definition (Le Fevre, et al., 2003). There are various definitions of stress. Psychotherapist Ethel Roskies refers to stress as "a shorthand symbol for explaining much of what ails us in the contemporary world" (Lazarus & Lazarus, 1994, p.219). Indeed, stress is a word that is frequently heard in a variety of context in modern society, and leads us to live in an "age of stress" (Selye, 1982, p.7). Not surprisingly, it is a topic that has been the focus of a great deal of research. Despite the rapid multiplication of studies on the topic, a clear definition of the term is lacking. As Breznitz and Golderberg (1993) note, "different scholars have different definitions [of stress] and oftentimes abide by those most suitable to the pursuit of their particular interests" (p.4). Selye (1987) defined stress as "the non-specific response of the body to any demand place upon it" (p.17). Palmer, Cooper, and Thomas, (2003) (as stated by Austin, 2004) stated that "stress occurs when the perceived pressure exceeds your perceived ability to cope" (p.2).

Early definitions of individual level stress had a singular focus on either the response or the stimulus (response-based and stimulus-based approaches), while comparatively recent interactional and transactional models more explicitly address the influence of environmental factors (O'Driscoll & Brough, 2003). In terms of historical context, however, Hans Selye is generally acknowledged as the first person to identify the physiological and psychological pattern of stress (Riggio, 1999). Selye proposed a response-based model where the physical and psychological expressions of stress emerge as an adaptation to demands made upon the organism; he referred to this phenomenon as general adaptation syndrome (Selye, 1956 as stated by O'Driscoll & Brough, 2003). Physical responses could include increases in heart rate, blood pressure, and respiration, and lead to conditions such as hypertension, heart disease, and gastrointestinal disorders, or psychological manifestations such as headaches, sleep disturbances, and anxiety (Smither, 1998). The effect of Selye's model remains in present-day definitions, which characterize stress as a "complex pattern of emotional states, physiological reactions, and related thoughts in response to external demands" (Greenberg & Baron, 2000; p.226).

Stimulus based models of stress reflect their origins in physics and engineering, where the notion of load tolerance is described as the point which stressors may exceed the system's ability to cope (O'Driscoll & Brough, 2003). That is, the accumulation of
stressors results in strain that leads to deviations from a normal state, or homeostasis. In the context of work it may first appear as physical and psychological symptoms of stress, followed by noticeable decrements in work performance (Greenberg & Baron, 2000). Underpinning of this approach is the notion that the system, or individual, is continually exposed to potential stressors, and that one's tolerance or coping resources are finite. Once the threshold of tolerance is reached, some level of distortion or disturbance occurs (O'Driscoll & Brough, 2003). Because of stress reactions cannot occur in the absence of external demands on coping resources, interactional models emerged to explain the relationship between stimulus and response. The interactionist perspective is based on the person-environment fit approach to human behavior, which accounts for both the conditions in the environment and characteristics of the individual who must cope with those demands (O'Driscoll & Brough, 2003). Historically, the notion of person-environment fit captured a broad range of individual level factors, including disposition and ability, which influence how well a person will be able to meet the demands of a given situation (Leonard et al., 2000). While research has consistently demonstrated that stress can result from a disparity between individual abilities and job demands (Smither, 1998), people also have the capacity to think about and act on their environment. That is, there is an interaction between environment and person, which recognizes people's choice to be useful in protection of their personal wellbeing. Following from this, current models of work stress combine individual and environment level factors in a dynamic framework that includes the person's ability to appraise the situation as within or beyond their coping resources (O'Driscoll & Brough, 2003). According to this perspective, or transactional model of stress, the subjective experience of work stress arises from a perception that a particular environmental event is a threat or challenge (Lazarus, 1991; in Riggio, 1999). The initial, or primary appraisal, is concerned with how the person evaluates the implications of a stressor, followed by secondary appraisal where an assessment is made about available coping resources. For example, while a situation is perceived to be stressful by one person, another individual may interpret it as entirely harmless. It is the mediating aspect of cognitive appraisal that determines whether the outcome will produce the subjective experience of stress for a particular individual (Greenberg & Baron, 2000; O'Driscoll & Brough, 2003). Thus, no single element is
deemed liable in isolation; it is the interplay between environmental stimuli, cognitive appraisal of events, and individual resources, that combine to produce a stress-inducing transaction. When the transaction leads an individual to perceive the situation as beyond his/her coping resources, the overall process is understood as stress (Greenberg & Baron, 2000). Then, physical manifestations such as increased heart rate and blood pressure (especially diastolic blood pressure), changes in hormone secretions, as well as increased respiration and blood cholesterol will occur (O’Driscoll & Brough, 2003). Long term effects have been linked to a range of serious illnesses, for example, heart disease, colitis, respiratory illnesses, and migraine headaches. In psychological terms, strain reactions can emerge as anxiety, depression, and chronic fatigue (Riggio, 1999). There are a number of behavioral indicators which reflect the subjective components of strain reactions. These may include withdrawal behaviors, such as reduced social contact and support seeking, and behaviors that are more directly related to organizational outcomes, such as absenteeism and turnover (O’Driscoll & Brough, 2003). Numerous studies have also linked health related behaviors to defensive, or avoidant, stress coping, increases in smoking, alcohol, and drug use, as well as disturbances in eating and sleeping pattern which may occur either an increase or decrease for different individuals. In summary, the experience of stress has several components that begin when an individual distinguish an environmental stimulus, appraises whether the stressor can be managed within available coping resources, and then respond accordingly.

OCCUPATIONAL STRESS AND CONTRIBUTING FACTORS

While “stress” and “burnout” are constructs from psychology which have achieved dominance in all forms of media since the 1980s, the industrial sociologists have been writing about the deleterious effects of work since Marx first wrote about the alienated labourer in 1844 (as stated by McIntyre, 2000). A contemporary Australian Marxist, McIntyre (2000) concluded in his thesis that alienation is occupational stress.

Stress that occurs due to a person’s employment is termed occupational stress. The terms work stress, job stress, or occupational stress is used interchangeably (Dollard, 2003). But there has been considerable debate, for example, about whether occupational stress should be defined in terms of the person, the environment, or both (e.g., Cooper, 1998; Cotton, 1995; Quick, Murphy, & Hurrell, 1992). This lack of coherence has led to
a degree of fragmentation in the occupational stress literature, and may explain, in part, why during the 1990s only 8% of the research articles related to occupational stress were published in the leading applied psychology and management journals (Anderson, et al., 2001).

Kyriacou, & Sutcliffe (1978) defined occupational stress as experience of unpleasant emotions, such as tension, frustration, anxiety, anger, and depression. This definition has been used extensively in the occupational stress literature (e.g., Newton, 1989), and is similar to definitions of psychological distress (Headey, & Wearing, 1992) and negative affect (Watson, 1988). But some researchers draw a distinction between stress and psychological distress (e.g., Quick, Murphy, & Hurrell, 1992). For example, Jex, Beehr, & Roberts (1992) told that occupational stress is typically associated with the negative feelings that employees have about their work.

Employers and governments have had increasing concern about occupational stress for over twenty years (Le Fevre, et al., 2003). In the past decade, effects of economic globalization and rapid technological changes have resulted in increased workloads and faster pace in the work place (Dollard, 2003). Modern trends such as organizational downsizing, competition for funding, and high demand jobs have led to rising occupational stress (Dollard, 2003). The cost of occupational stress in the United States is estimated to range between 200 and 300 billion dollars annually (Le Fevre, et al., 2003). One study in the United States revealed that 54 percent of absence from work is estimated to be stress-related (Elkin & Rosch, 1990). Another report was that 75 percent to 90 percent of physician visits are estimated to be for stress-related complaints and illnesses. Unmanaged stress for employees can result in short-and-long term negative health effects including exhaustion, physical pain, depression, sleep disturbances, and even death (Brock, & Grady, 2002; Le Fevre, et al., 2003).

The causes and characteristics of occupational stress have been the topic of much research. Cooper and Marshall (1978) identified seven major categories of work stress as following:

**STRESS FACTORS INTRINSIC TO THE JOB**

According to Cooper and Marshall (1978), factors intrinsic to the job were the first and vital focus of study for early stress researchers. This focus relates to the belief that
stress can be caused by too much or too little work, tie pressures and deadlines, having too many decisions, fatigue from physical strains, excessive travel, long hours, having to cope with changes at work and expenses of making mistakes. Two factors appear to have received the major focus of the research effort in this area, namely working conditions and work overload (Cooper, and Marshall, 1978; Sharit, and Salvendy, 1982).

WORKING CONDITIONS AND PHYSICAL ENVIRONMENT: working conditions of Jobs have been linked to physical and mental health (Sharit, and Salvendy, 1982).

WORK AND/OR ROLE OVERLOAD: work overload, also known as role overload, is considered to be a more important stressor for managers and “white-collar workers” than working conditions. It can be seen in terms of quantitative and qualitative overload. Quantitative overload refers to having too much to do, whereas qualitative overload refers to work that it’s too difficult (French, and Caplan, 1973; Cooper, and Marshall, 1978). In one study conducted by French and Caplan (1973), it was found that qualitative overload was linked to cigarette smoking (a risk factor for coronary heart disease). They found that people with more telephone calls, office visits and meetings per given unit of work time were found to smoke significantly more cigarettes than people with fewer stressors of this nature. In a study by Margolis, Kroess and Quinn (1974) (as stated by Cooper & Quinn, 1978), quantitative work overload was significantly related to indicators of stress such as escapist drinking, absenteeism from work, low motivation to work, and lowered self esteem. These results show that work overload is a potential source of occupational stress that adversely affected both health and job satisfaction. Qualitative overload is primarily associated with low self esteem where individuals perceive they are overloaded with work that they can not do it (Cooper & Marshall, 1978). In a summary by French and Caplan (1973), quantitative and qualitative work overload produced at least nine different symptoms of psychological and physical strain, namely low job satisfaction, job tension, lower self esteem, threat, embarrassment, high cholesterol levels, increased heart rate, high skin resistance and increased smoking.

ROLE IN THE ORGANIZATION

Since the research by Khan, Wolf, Quinn, Snoek and Rosenthal (1964), the focus has been on three key concepts in this area as follow:
ROLE AMBIGUITY: role ambiguity is the result of the individual having insufficient information about his/her work role. This lack of clarity about work objectives, expectations and the scope and responsibilities of the job, result in lower job satisfaction, high job related tension and lower self esteem (Khan, et al., 1964). Margolis et al. (1974) (as stated by Cooper & Marshall, 1978) also found that role ambiguity was associated with physiological strain such as increased blood pressure and pulse rate. Other indicators were depressed mood, lowered self esteem, life dissatisfaction, job dissatisfaction, low motivation to work, and intention to leave the job. Although not strong, the relationships were significant and indicate that “lack of clarity” could be one of many potential stressors at work (Cooper et al., 1988).

ROLE CONFLICT: it occurs when individual is confronted with conflicting job demands or doing things that he/she does not want to do or does not feel it’s a part of the job specification. Khan (1974) found that men who suffered more role conflict had lower job satisfaction and higher job related tension.

RESPONSIBILITY: responsibility can be divided into “responsibility for people” and “responsibility for things”. Responsibility for people is significantly more likely to lead to coronary heart disease than responsibility for things (Wardwell, 1964; as stated in Cooper & Marshall, 1978). This stress results from the need to spend more time interacting with employees and other people, attending meetings, working alone, hence more time is spent trying to meet deadlines. French and Caplan (1973) showed that responsibility for people was significantly related to higher levels of risk factors such as heavy smoking, high blood pressure and cholesterol.

OTHER ROLE STRESSORS: other potential role stressors include having too little responsibility, lack of participation in decision making, lack of managerial support, having to keep up with increasing standards of performance and coping with rapid technological change (Burke & Greenglass, 1989; Cooper, & Marshall, 1978).

RELATIONSHIPS AT WORK

According to Cooper and Marshall (1978), the third major source of stress at work, focuses on the nature of relationships in the workplace (with the subordinates, and colleagues). It is believed that good relationships between members of a work group or organization are important factor in individual and organizational health. The results of
studies (Kahn, et al. (1964); French and Caplan, 1973) showed that mistrust of co-workers was positively related to high role ambiguity, and thus resulted in inadequate communication, which in turn led to psychological strain symptoms such as low job satisfaction and job related threat to well being (Burke & Greenglass, 1989; Cooper & Marshall, 1978). This source of stress divided to three categories as follow:

RELATIONSHIP WITH SUPERIOR: supervisors who are perceived to be more considerate to subordinates have a significant effect on reduced feelings of pressure in the work situation (Burke & Greenglass, 1989).

RELATIONSHIPS WITH SUBORDINATES: there are evidence that managers may feel resentment, anxiety and stress as a result of a mismatch of formal and actual power (Cooper, & Marshall, 1978).

RELATIONSHIP WITH COLLEAGUES AND SOCIAL SUPPORT: stress can be caused, not only by the pressure of relationships, but also by the lack of adequate social support in difficult situations (Burke & Greenglass, 1989).

CAREER DEVELOPMENT

Cooper and Marshall (1978) identified two major areas of potential career stressors are 1. The first area is lack of job security, fear of redundancy, obsolescence or early retirement. 2. The second area is status incongruity, under or over promotion, frustration with reaching career ceiling (Cooper, & Marshall, 1978). According to Cooper and Marshall (1978) “executive neurosis” is the result of an over promoted manager, overworking to keep down a high level job and hiding a sense of insecurity. This has consequences for both the individual’s performance and the organization.

ORGANIZATIONAL STRUCTURE AND CLIMATE

Simply being in an organization is a source of stress. The risk of losing individual freedom, autonomy and identity can create problems such as lack of participation in decision making processes, no sense of belonging, lack of effective consultation, poor communication, restrictions on behavior and office politics. French and Caplan (1973) reported that individuals who had greater opportunities for participation in decision making showed significantly higher job satisfaction levels, lower job related feelings of threat and higher feelings of self esteem. There is a strong indication that greater participation leads to lower staff turnover and higher productivity, and lower participation
results in lower job satisfaction and higher levels of physical and mental health risk (Burke & Greenglass, 1989).

**EXTRA ORGANIZATIONAL SOURCES OF STRESS**

It is the final source of external job stress that relates to the interfaces between life outside and life inside the organization which put pressure on the individual. It's include of family issues, life crises, financial difficulties, conflict of personal believes with those of the organization and conflict of organizational and family demands. The stress often results from the multiple roles that one person may play at work and at home (Burke & Greenglass, 1989).

**INDIVIDUAL CHARACTERISTICS**

Different people react differently to pressure in the work situation. Some have better abilities to cope than others and are able to adapt their behavior in order to meet the challenge. According to numerous authors (Cooper, & Bright, 2001; Cooper, & Marshall, 1978) many factors contribute to these differences, ranging from personality, gender, motivation, inability to deal with problems in an area of expertise, and fluctuations in ability (often related to age). Most research into individual differences in characteristics has focused on personality differences between high and low stress individuals. Psychometric studies have shown a high relationship between certain psychometric measures such as anxiety, emotional instability, and depression, in one side and the incidence of coronary heart disease (CHD), in other side (Cooper, & Bright, 2001).

In the other hand, Dollerd (2003) presented a categorical matrix adopted from Cox, et al. (2000) to define the stressful characteristics of work, which included job characteristics, social and individual components as are given below:

**JOB CHARACTERISTICS AND NATURE OF WORK**

**JOB CONTENTS/DEMANDS:** high physical, mental and/or emotional demands, high uncertainly, continuous exposure to people through work.

**WORK LOAD/WORK PLACE:** work overload, pressured deadlines.

**WORK SCHEDULE:** shift working, inflexible work schedules, unpredictable hours, and long or unsocial hours.

**JOB CONTROL:** low participation in decision making, lack of control over workloads.

**PHYSICAL ENVIRONMENT:** inadequate or faulty equipment, poor environmental conditions.
SOCIAL AND ORGANIZATIONAL CONTEXT OF WORK

ORGANIZATIONAL CULTURE: poor communication, low levels of support for problem-solving and personal development, lack of definition on organizational objectives.

INTERPERSONAL RELATIONSHIPS AT WORK: social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support.

ROLE IN ORGANIZATION: role ambiguity, role conflict, responsibility.

CAREER DEVELOPMENT: career stagnation and uncertainty, under promotion or over promotion, poor pay, job insecurity, low social value of work.

INDIVIDUAL RISK FACTORS

INDIVIDUAL DIFFERENCES: coping styles, personality, hardiness.

HOME-WORK INTERFACE: conflicting demand of work and home, low support at home, dual career problems.

THE STRESSORS AND STRAIN APPROACH TO OCCUPATIONAL STRESS

This theory is based on a relatively simplistic theory that views stress as occurring when work characteristics contribute to poor psychological or physical health (Beehr, 1995). According to this approach, stressors refer to the work-related characteristics, events or situations that give rise to stress, and strain refers to an employee’s physiological or psychological response to stress (Hurrell, Nelson, & Simmons, 1998). The main interest is on the presumed causal relationship between stressors and strain. Cox (1978) has likened this approach to an engineering model in which environmental demands may put people under pressure, and the strain created by this pressure may place people at risk of experiencing physiological and psychological harm.

The stressors and strain approach is at the core of most recent research into occupational stress. This research has concentrated on identifying the occupational and organizational sources of stress that are related to various indices of strain (e.g., job dissatisfaction, psychological distress, burnout, and sickness absence) and, in some instances, has focused on identifying the individual (e.g., perceived control) and organizational (e.g., decision-latitude) factors that moderate the stressor-strain relationship (e.g., Quick, et al., 1992; Sauter, & Murphy, 1995).
PROCESS THEORIES OF OCCUPATIONAL STRESS

One thing that most process theories have in common, however, is that they are based on the transactional approach to stress. The transactional approach treats stress as a dynamic process operating between a person and his or her environment. Although the term “transaction” is used to emphasize the fact that stress results from the conjunction between personal and environmental variables (Cox, 1978; Lazarus, & Folkman, 1984), it is the dynamic, reciprocal nature of the relationships between these variables that distinguishes transactional models from other more static, or unidirectional theories. For example, the stressors and strain approach assumes that stressors cause strain. There is no allowance for the fact that a reciprocal causal relationship may exist between stressors and strain, or that employees’ levels of strain may actually cause them to experience stressors. Moreover, the reciprocity or mutual determinism that is an integral part of transactional theories serves to create a self-regulating system that is constantly striving to maintain a state of homeostasis or equilibrium (Edwards, 1992; Hart, 1999; Headey, & Wearing, 1989). This means that in order to understand occupational stress, it is necessary to understand how a system of variables relates to one another over time. The transactional approach has led to the development of specific occupational stress theories, such as French et al.’s (1982) person-environment fit theory, which suggests that a misfit between the characteristics of individual (e.g., abilities and goals) and his or her work environment (e.g., work demands and organizational climate) will result in psychological, physiological, and behavioral strain.

THE MODEL OF WORK STRESS

Work related stress has become increasingly recognized as a diagnosable psychological “injury” or disorder (Stebbins, 2003). There are a variety of work stress models and theories. These explanations of work stress differ according to the emphasis for the induction of stress and the different outcomes for the management of stress (Le Fevre, et al., 2003; Dollard, 2003). Early models for understanding stress were framed around the medical model of individual vulnerability, leading to labeling of workers as blameworthy victims who were somehow disconnected from the work setting (Stebbins, 2003). In contrast, sociological models focused on environmental factors as the precipitants of work stress, and neglected the interaction with individual risk factors.
Recently, integrated approaches consider how environmental factors combine with individual diatheses to produce the subjective experience of work stress (Stebbins, 2003).

**TEACHERS AND WORK STRESS**

The experience of stress for teachers is qualitatively different from the work stress experienced by many others in the work context. Van Der Lind (2000) describes teaching as characterized by great responsibility, with no freedom to leave the classroom for more than a few moments, and pressure to control one's emotions. In the school settings, there is little respite from the severe demand for emotional labor (Kolezynski, 2003). The body's stress reaction is designed to prepare the organism to fly or fight when confronted with a threat to well being. For teachers however, situational constraints impinge heavily on their capacity to manage stress, regardless to its intensity (Dorman, 2003; Van Der Linde, 2000). For this occupational group, the sources of stress are manifold and intensify the conflict between preservation of well being and continuing to function in the face of such influences. Like their colleagues, teachers are subject to the interaction of organizational and individual level factors typically associated with work and work stress. The outcomes for teachers are more pronounced in light of the well-documented isolation they experience in the normal course of their work (Cochran-Smith & Lytle, 1992). Isolation produces a double-bind for teachers, in that it allows for privacy, but can also lead to loneliness and while it permits autonomy, it can amplify one's sense of separation (Dorman, 2003; Cochran-Smith, & Lytle, 1992).

McCormick and Solman (1992) examined the nature of occupational stress for teachers. Analysis revealed four factors likely to engender teacher stress:

1. Supervision, particularly general satisfaction with the interpersonal elements of supervision, and low satisfaction with recognition.
2. Extrinsic factors such as low salary levels and poor working conditions, which were not compensated by job security.
3. School culture, especially where teachers did not have a strong sense of “fit” with the school environment.
4. Low satisfaction with advancement opportunities (p.106).

, Borg, Falzon and Baglioni (1995) were conducted an investigation about teacher stress, that causal modeling techniques were used to look at the strength and direction of
specific relationships. Based on a sample 710 primary teachers, exploratory factor analysis produced a five-factor model of teacher stress, accounting for 65% of variance. Dimensions of stress were workload, student misbehavior, professional recognition needs, time/resource difficulties, and poor colleague relations. To further exploration, they were categorized this variables in two categorizes, namely: exogenous (student misbehavior, time/resource difficulties, workload, and professional recognition) and endogenous (poor colleague relations). Student misbehavior and workload emerged the strongest predictors of stress, and were entirely consistent with studies reported elsewhere. However, results for time/resource difficulties and professional recognition needs contradicted the findings of other researchers. But poor relations with colleagues failed to emerge as a direct predictor of stress, in contrast of results that generally reported by other researchers. Regardless of the apparent contradiction in some of these results, the study still offers support for the notion of multiple sources of teacher stress, in line with similar research.

In another study, Punch and Tuetteman (1996) found four stressor resources for teachers, namely: 1. inadequate access to facilities, 2. intrusion of school related work into recreational time, 3. student misbehavior (reported by 24% of males, and 29% of female teachers), and 4. excessive societal expectations, on the other hand they identified two remedy factors namely: 1. support received from colleagues, including principals, and 2. praise and recognition. For both males and females, collegial support emerged as the strongest countervailing influence for the amelioration of distress, and the most significant resource for coping with student behavior problems.

Abel and Sewell (1999) investigated differences in the sources of stress between rural and urban schools. Ninety-eight secondary school teachers in two states of America completed the sources of stress questionnaire, which specifically measures sources of school-based stress, and the Maslach burnout inventory to assess levels of stress and burnout. Significantly greater stress was found for urban versus rural schools from (i) poor working conditions, including inadequate resources, (ii) lack of recognition and advancement prospects, (iii) poor staff relations, including an unfriendly atmosphere, and lack of support from both urban and rural schools, student misbehavior and time pressures were the factors of stress, with no significant differences between groups.
Smith and Bourke (1991) conducted a study of investigate the aspects of work environment and teachers' work stress. Six hunter region (New South Wales) schools, and 204 teachers, participated in an investigation of stress arising from the demands of teaching, levels of work satisfaction, and background conditions in the teaching environment. In this study a moderate relationship ($r=-0.48$) was found between school background factors and teachers' feelings towards students. A similar result was reported for teacher workload, where higher workload was appeared to increase stress and reduce satisfying relationships with students. Further results showed that time pressure, and lack of rewards and recognition had only "a little or some" effect in comparison with conflicting arising from staff tensions and interactions with students in stress producing. In terms of work satisfaction, a positive association was found for relationships with principals and senior staff, followed by relationships with students, while workload and work conditions achieved the lowest mean satisfaction rating overall. Although the positive result for relationships with students may appear surprisingly, it is often a source of contradiction given that students can be either a source of stress or intrinsic reward for teachers.

Czubaj (1996) cited several studies that explored how the effectiveness of one's stress coping may be related to motivational differences in the face of objective stressors. Some of the variables identified as intrinsic motivators were internal locus of control, self efficacy, outcome expectations, psychological attachment to the teaching profession, and failure tolerance. Higher scores on measures of these constructs were associated with lower perceived stress and fewer strain reactions. In contrast, people who were higher on external locus of control and lower on the remaining dimensions were more likely to experience stress or burnout when external stressors accumulated. The results highlight the idea of stress as a transaction between person and environment, and points to a need for robust supportive cultures to counterbalance individual variation in stress coping.

Another variable that has effect on teachers' stress is "higher self". Mills (1991) was claimed that teachers who were unable to harness their "higher self" were more likely to become "burned out" and apply external pressures to catalyze motivation in their students.
Personal power has a positive association with job satisfaction and an inverse relationship to job stress. Davis & Wilson (2000) conceptualized personal power as part of intrinsic motivation, and included cognitive and behavioral aspects such as competence, meaningfulness, impact and choice. Competence was defined as a belief in one’s capacity for performance, meaningfulness as the value on places on task goals according to personal ideas, impact as the degree to which one perceives their behavior is producing intended effects, and choice as the intentional selection of actions to produce desired outcomes.

There also appears to be general agreement in the literature that negative stressors are a combination of workload, student misbehavior, poor relations with colleagues, lack of recognition, few advancement opportunities, time pressure, and inadequate resources. Protective factors were found to have two aspects: 1. individual level, including differences in locus of control, self-efficacy, and stress tolerance, 2. school level, including good working relations with senior staff, relations with students, appropriate workload, and satisfactory working.

**STIMULUS-ORIENTED TEACHER STRESS RESEARCH**

The various stimulus-oriented studies into teacher stress have highlighted situational variables that teachers find stress producing. In an extensive review of the literature, Hiebert (1985; as stated by Chorney, 1997) found the strongest and most consistently perceived teacher stressor were (a) time pressures (work overload), (b) interactions with disruptive students, (c) interactions with administrators, (d) parent-teacher interactions, (e) role ambiguity, and (f) varied and extensive demands. In the research that has been conducted in the years since this review, these variables continue to be identified by teachers as significant stressors, although, as previously, variation exists in the ranking of “top stressors”.

Appley and Trumbull (1967, as stated by Chorney, 1997) refer to time as a neglected variable in understanding stress. Blase (1986) notes that when looking at stress in organizations, time control is a critical variable as it impacts upon the relationship of perceived demand and perceived coping ability. Time pressures/work overload is a variable that is identified as being a significant stressor by teachers of through-out the world. In a nation-wide survey of over 14000 Canadian teachers, King and Peart (1992)
found that excessive workload and time demands (defined primarily as out-of-class marking and lesson preparation) were the biggest contributors to teacher stress. In two studies of New Zealand teachers (Dewe, 1986, n=800; Manthei and Solman, 1988, n=640), teachers reported overload to be their primary stressor. Similar results were found in studies of 204 Australian teachers (Smith and Bourke, 1992), and 917 teachers from Norway (Mykletun, 1984). Borg, Riding, and Falzon (1991) found a strong association between teacher stress and time/resource difficulties in 710 Maltese teachers. French (1991) found time pressures and paperwork to be the greatest rated stressors by 233 U.S. teachers, and Starnaman and Miller (1992) found overload to be a major source of stress in another sample of U.S. teachers (n=182). In the latter study, work overload was found to be "most strongly and directly related to role conflict, r=0.46 and emotional exhaustion, r=0.41" (p. 50), consistent with the finding by Capel (1987) that "taking work home to do" was more frequently associated with higher emotional exhaustion and depersonalization. Finding of a strong relationship between work overload and teacher occupational stress/burnout are reported by other researchers as well (Blase, 1986; Byrne, 1991; Cooper & Kelly, 1993; Defrank & Stroup, 1989; Friesen, Prokop, & Sarros, 1988; Jenkins & Calhoun, 1991; Mo, 1991; Montalvo, Bair, & Boor, 1995; Oconnor & Clarke, 1990; Payne, & Furnham, 1987; Pierce & Molloy, 1990; Tokar & Feitler, 1986). In further examining the work load variable, Mykletun (1984) found that part-time teachers and teachers with fewer students were less distressed by work load, while teachers of lower grades were impacted more by this variable. Mykletun reported that this variable impacts senior teacher less, however, Harris, Halpin, and Halpin (1985) noted an association between being older and reporting job overload as a significant stressor. Payne and Furnham (1987) noted that more females than males reported work overload to be an issue. Using the occupational stress inventory (Osipow & Spokane, 1987), an instrument that allows comparison of stress factors across occupational groups, Pithers and Fogarty (1995) found 83 vocational teachers to have a significantly higher score on role overload than 71 business and professional men and women. These results suggested that as an occupational stress variable, work overload has the potential to be a particularly salient factor for members of the work force who are teachers. Interaction with students is another variable that is frequently identified by teachers as cause of stress. In a study by
Pierce and Molloy (1990), Australian teachers in the high burnout group rated student concerns as cause of greatest stress. Classroom management and discipline was the stressor that received the highest mean rating in a study of 543 Newfoundland and Labrador teachers (Klas, 1994, as stated by Chomey, 1997), and "disruptive students" was the item reported as most stressful in a study by Montalvo, Bair and Boor (1995). Borg, Riding, and Falzon (1991) found a strong association between pupil misbehavior and teacher stress (n=710, Maltese teachers). Payne and Furnham (1987) reported that student behavior (poor work attitudes of students) was highly related to stress in 444 teachers in Barbados. Interactions with disruptive students were reported as the third greatest contributor to teacher stress in a Canadian study by King and Peart (1992), and the third most frequently occurring stressful situation in a New Zealand study by Dewe (1986). Other researchers have found interactions with students to be linked to teacher stress (Blasé, 1986; DeFrank & Stroup, 1989; Manthei & Solman, 1988; Oconnor & Clarke, 1990; Salo, 1995; Tokar & Feitler, 1986; Tuetttemann & Punch, 1992). Manthei and Solman (1988) noted that in their study, more concern was expressed about interactions with students by teachers with less than 5 years of experience.

Interaction with administrators is a variable that is frequently highlighted as a factor in the stress levels experienced by teachers. King and Peart (1992) found this variable as a second largest contributor to teacher stress. Jackson, Schwab, and Schuler (1986) reported that lack of support from one's principle is associated with depersonalization. Other researchers noted an association between perceived lack of support from administrators and teacher stress (Byrne, 1991; Greenglass, Fiksenbaum, & Burke, 1994; O'connor & Clarke, 1990; Russel, Altmaier, & Vanvelzen, 1987; Sarros, & Sarros, 1992). Blasé, Dedrick, and Strathe (1986) found that "a school principle's leadership style characterized by a high level of structure and consideration was related to lower levels of perceived teacher stress" (p.166), and Starnaman and Miller (1992) reported principle support to be related to decreases in both role ambiguity (r=-0.50) and role conflict (r=-0.25). Role ambiguity is defined as the "lack of clear, consistent information regarding the rights, duties, and responsibilities of the job and how these duties/responsibilities can best be performed" (Schwab, Jackson, & Schuler, 1986, p.16). Eskridge and Coker (1985) added that it also involves "not knowing the criteria by which
one's work is to be judged” (p.388). Several researchers reported an association between role ambiguity and teacher stress (Capel, 1987; Mo, 1991; Pierce & Molloy, 1990; Schwab, Jackson, & Schuler, 1986).

Role conflict is defined as the “simultaneous occurrence of two or more sets of inconsistent” (Schwab, Jackson, & Schuler, 1986, p.16). Findings of associations between this variable and teacher stress are reported (Pierce & Molloy, 1990; Schwab, Jackson, & Schuler, 1986). The later researchers noted that “after controlling for sex and age, role conflict explained the largest percentage of variance in emotional exhaustion and depersonalization (24% and 12% respectively)” (p.24).

Other variables that have been found to contribute to teacher stress are large class sizes (Byrne, 1991; Mo, 1991), and negative community attitudes (O’connor & Clarke, 1990). Parent-teacher interactions are also reported as a source of stress. Dewe (1986) found parent-teacher interactions to be the second frequently occurring stressful situation, and Friesen, Prokop, and Sarros (1988) noted that attitudes of parents contribute to emotional exhaustion. In summary, while there are commonalities in the variables reported by teachers, there are also differences in the rank ordering of these. Hiebert (1985, as stated by Chorney, 1997) noted that “variation would be expected the coping repertories of teachers and their working conditions vary across schools districts” (p.25).

TEACHER STRESS RESEARCH AND DEMOGRAPHIC VARIABLES

Some teacher stress research designs have included analyses of demographic variables. Overall, the findings from such analyses tend to be inclusive. While many researchers report that factors such as age, gender, and years of teaching experience did not contribute to stress/burnout in their sample populations (Morgan & Krehbiel, 1985; Manthei & Solman, 1988; Sigler & Wilson, 1988; Burke & Greenglass, 1989& 1994; Schonfeld, 1990), others reported differences. Some researchers reported that while differences were found for one demographic variable, no significant differences were found on others. The following paragraphs highlight differences reported in various studies.

With regard to gender differences in teacher stress, King and Peart (1992) reported “there was a slightly greater tendency for female respondents to score in the high stress category” (p.111). Ratsoy and Friesen (1985, as stated by Chorney, 1997) and
Laughlin (1984) reported similar findings. Anderson and Iwanicki (1984) were reported, the males in their sample showed significantly more burnout. Long and Gessaroli (1989) also found males to be more stressed. Some researchers reported variations in responses between males and females on stress/burnout measures. In some cases, this variation occurs even though no significant differences were found in overall stress levels. Student misbehavior has been found to contribute more to female teacher stress (Laughlin, 1984; Dewe, 1986; Payne & Furnham, 1987; O’connor & Clarke, 1990; Borg, Riding & Falzon, 1991; Tuettemann & Punch, 1992), because they have “excessive societal expectations” (Tuettemann & Punch, 1992) and “unsupportive parents” (Dewe, 1986). Borg, Riding, and Falzon (1991) and O’connor and Clarke (1990) reported time/resource difficulties to cause greater stress for female teachers, and Greenglass and Burke (1989) reported that marital satisfaction predicted burnout in women only, as did role conflict (work versus personal) and boss support. Male teachers have scored higher on depersonalization in various studies (Schwab, & Iwanicki, 1982; Gold, 1985; Russell, Altmaier & Vanvelzen, 1987; Greenglass & Burke, 1989; Sarros, 1992). Dewe (1986) found that male teachers experienced higher anxiety over having little individual control, over different school events, and Borg, Riding and Falzon (1991) were reported that male teachers showed greater stress due to professional recognition needs. In a study by Laughlin (1984), male reported more stress related to curriculum demands. Tuetteman and Punch (1992) found that support for male teachers was a more powerful factor in psychological distress than for females. The researchers noted that males appear to be more dependent than female teachers for their wellbeing on “satisfying interaction between superiors and colleagues as mates and supporters” (p.52).

Age related differences in teacher stress levels have been examined. King and Peart (1992) reported that “greater proportions of younger teachers than teachers over 51 years of age experienced high stress” (p.111), and Schwab and Iwanicki (1982) found that teachers 20-39 years old had more intense feelings of emotional exhaustion than teachers 50 years and older. Similarly, Farber (1984) observed that “teachers in the 21-33 and 34-44 years old age group perceived themselves as more burned out and less committed to teaching than did teachers in the 45-65 year-old age category” (p.329). Feitler and Tokar (1982) also found that higher stress levels were associated with being in
the 31-44 years age range. Other researchers have found that stress/burnout is higher among younger teachers (Anderson & Iwanicki, 1984; Gold, 1985; Russell, Altmaier & Vanvelzen, 1987; Sarros & Sarros, 1992). In examining differences in responses on stress/burnout measures for teachers of different ages, Laughlin (1984) observed that teachers under 26 years old showed significantly greater degree of stress from pupil recalcitrance, and that young university graduates were least affected by curriculum demands. In this same study, older groups reported significantly more stress from time and resource difficulties, and curriculum demand.

In examining years of experience as a variable in the stress equation, Pierce and Molloy (1990) reported that “teachers in the low burnout group tended to have more overall teaching experience” (p.45). Other researchers have also found fewer years of experience to be associated with higher stress levels (McMurray, 1986; Capel, 1987; Mo, 1991; Okebukola & Jegede, 1992). In contrast, Borg, Riding, and Falzon (1991) found that greater stress levels were reported by the more experienced teachers in their study. Ratsoy and Friesen (1985) as stated by Chorney (1997) similarly reported that the lowest burnout scores “were, on average, observed by first and second year teachers and the highest levels by those with 16 to 25 years of experience” (p.160). Parkay, Greenwood, Olejnik, and Proller (1988) reported “the levels of stress experienced by teachers increased with the amount of job experience” (p.19) until 20 years. Lowest stress levels were found in the teachers with over 20 years of experience.

Grade level as a variable has also been examined. Ratsoy, and Friesen (1985) as stated by Chorney (1997) reported “a slightly tendency for higher average stress scores to be associated with the elementary grades (1-6)” (p.160). Similar findings have also been reported by King and Peart (1992) and Malik, Mueller, and Meinke (1991). In contrast, some researchers have reported that higher stress levels (particularly as measured by depersonalization) are found to be associated with teaching at the junior and senior high levels (Schwab & Iwanicki, 1982; Feitler & Tokar, 1982; Anderson & Iwanicki, 1984; Farber, 1984; Gold, 1985; Russell, Altmaier & Vanvelzen, 1987; Burke & Greenglass, 1989). In examining particular stressors for teachers at various grade levels, Laughlin (1984) found that curriculum demands caused greater stress for elementary teachers. In this study, pupil recalcitrance was the greatest reported stressor for junior high teachers.
Finally, other demographic variables that have been associated with higher teacher stress levels are teaching in an urban school (Feitler & Tokar, 1982) and large class sizes (Russell, Altmaier & Vanvelzen, 1987; French, 1993). A finding that relates to the demographic variable of class size is reported by Hiebert (1985) as stated by Chorney (1997) in his review of the literature. He mentioned that class size is associated with student discipline problems. (And discipline problems have been associated with higher levels of teacher stress). In drawing conclusion, in reviewing the findings of investigations into the relationship between demographic variables and teacher occupational stress, variation is found. Byrne (1991) mentioned that the influence of demographic variables varies with the “specific burnout facet under study” (p.197). He further indicates that stress/burnout is a multidimensional construct, “the facets of which are differentially by particular background variables” (p.207). Since research designs often focused on different aspects of stress/burnout, variation in research results is not surprising. In addition, confounding variables may be adding to the inconsistencies in results. For example, while Burke and Greenglass (1989) found that elementary teachers are less stressed, this particular group of teachers also had significantly more years of teaching experience than the other group of teachers. Teaching experience has been linked to lower stress levels by some researchers.

TEACHER-STRESS RESEARCH AND PERSONAL VARIABLES

Of the personal variables that have been studied, locus of control has received the most attention. As conceptualized by Rotter (1966), locus of control concerns outcome expectations. He noted that people differ in the degree to which they believe a behavioral reinforcement “follows from, or is contingent upon, [an individual’s] own behavior or attributes versus the degree to which [he/she] feels the reward is controlled by forces outside of himself” (p.1). In the former belief condition, one is said to have an internal locus of control while in the latter, one is said to have an external locus of control. In applying these terms to the occupation of teaching, Harris, Halpin and Halpin (1984) as stated by Chorney (1997) reported the following results:

“The internal teacher apparently believes that he/she is influential in the classroom, accepts the responsibility for his/her actions and works hard to achieve education goals. The external teacher, on the other hand, feels that he/she has little
control over what happens, does not seem to [have] value planning, ability, or effort, but attributes educational outcomes to luck, fate and chance” (p.13).

Several researchers have found an association between teacher stress/burnout and an external locus of control (Kyriacou, 1980) as stated by Chorney (1997); Harris & Halpin, 1985; Soh, 1986, 1988; Capel, 1987; Pierce & Molloy, 1990). Correlations in theses studies range from r=0.23 (Halpin, Harris & Halpin, 1985) to r=0.36 [Kyriacou (1980) as stated by Chorney (1997)]. The researchers’ observations revealed that teachers with a high internal locus of control “had less difficulty with student behavior, more positive relations with both school administrators and their colleagues, and fewer symptoms of psychological and emotional distress” (p.16).

Also, Hamman and DeMayo (1982) reported that the “strongest cognitive correlates of depressive symptoms were teachers’ beliefs that they and others had little control in dealing with unchangeable stress-producing factors” (p.99). Kyriacou (1980) as stated by Chorney (1997) found that a belief in external control was greater in younger and less experienced teachers. In a closer look at locus of control and stress in teachers, Aney (1988) investigated the influence of environment structure (centralization, formulation, and complexity). Results of this study clearly indicated that stress levels in internals and externals were not consistent across different environment structures. For example, under high centralization (limited participation in decision-making as it relates to school policy and classroom and curriculum issues), stress levels were significantly higher in internals. These results supported a personality-environment (fit-misfit) conceptualization of job stress. Krause (1986) found that while older individuals with an extreme internal focus generally were able to avert stressful events, they were particularly vulnerable to psychological stress (self blame, guilt) when faced with unavoidable stressful events.

Efficacy is an important construct that is related to locus of control. According to Bandura (1984), “Perceived self efficacy is concerned with people’s judgments of their capabilities to execute given levels of performance” (p.232). In teacher occupation stress literature, teacher efficacy is conceptualized as consisting of general teaching efficacy (beliefs about the extent to which teachers in general can impact upon students) and
personal teaching efficacy (beliefs about one’s own ability to influence student performance) (Gibson & Denbo, 1984; Ross, 1994).

Finneran (1990) found that teacher efficacy explained significant amounts of variance in total teacher stress and sources of teacher stress (20% and 34% respectively). Tuettmann and Punch (1992) reported that efficacy correlated negatively with psychological distress ($r=-0.27$). In this study, efficacy served as a moderator for distress associated with inadequate access to facilities and intrusion of school work into out-of-hours time. Greenwood, Olejnik, and Parkay (1990) found significantly higher teacher stress scores (Wilson Stress profile for teachers [Wilson (1979) as stated by Chorney (1997)]) in teachers that fit pattern-I (I can’t, teachers can’t) than in either pattern-II (I can’t, teachers can) or pattern-III (I can, teachers can). Brissie and et al. (1988) also found a negative correlation ($r=-0.43$) between burnout and personal teaching efficacy. These results are consistent with those reported in the general stress literature. For example, Wiedenfeld, O’leary, Bandura, Brown, Levin, and Raska (1990) reported that the development of “Strong perceived self efficacy to control phobic stressors had an immuno-enhancing effect” (p.1082).

In examining general beliefs and teacher occupational stress, Bernard (1988) found that teachers are high in irrationality reported more stress (Teacher Irrational Beliefs Scales developed by the researchers based on Ellis). Bernard also reported that experienced teachers indicated fewer irrational beliefs than those with little experience, and that irrationality was more strongly associated with stress levels than coping skills. In a population of 122 teachers, Zingle and Anderson (1990) found a significant correlation ($r=0.31$) between irrational beliefs (Adult Irrational Ideas Inventory, based on the work of Ellis, developed by Davies, & Zingle, 1970) and stress (Teacher Occupational Stress Factor Questionnaire, developed by Clark, 1980). The researchers reported that the level of perceived job-related stress varied directly with the level of irrational beliefs. Forman (1981, 1982, 1990, and 1994) reported reductions in teacher stress following interventions that include RET (Rational-Emotive-Therapy, a technique that targets irrational thinking).

Flett, Hewitt, and Hallett (1995) looked at the relationship between perfectionism and teacher stress [Teacher Stress Inventory developed by Fimian (1988) as stated by
Chorney (1997)]. A positive association was found between socially prescribed perfectionism (perception that others have unrealistically high expectations) and stress. Frequency correlations on the stress factors and professional distress, emotional manifestations, physiological manifestations were $r=0.39$, $0.59$, and $0.41$ respectively. Intensity in terms of the degree correlations on the same indices were $r=0.35$, $0.63$, and $0.48$.

Some researchers have investigated the relationship between discipline style and teacher stress. Morgan and Krehbiel (1985) found a significant negative correlation ($r=-0.57$) between burnout and humanistic orientation to teaching (humanistic orientation defined as incorporating an emphasis on self-esteem, self-understanding and understanding of others; non-humanistic defined as focusing on academic changes, and using behavior modification solely with students). Harris, Halpin, and Halpin (1984) as stated by Chorney (1997) found that high stress in teachers (Teacher Occupational Stress Factor Questionnaire (TOSFQ), developed by Clark, 1980) was associated with an authoritarian pupil control orientation. Similarly, Albertson and Kagan (1987) found that high stress scores on the TOSFQ were associated with endorsing an authoritarian attitude towards pupil control.

In investigating the relationship between cognitive style and teacher stress, Borg and Riding (1993) found that teachers are fit with the analytic profile (goal seeking, requiring greater control of people and situations) reported greater stress on the factors of pupil misbehavior and poor working conditions. Kagan (1989) found that teachers who fit the pragmatist profile [tend “to evaluate situations in terms of subjective costs and benefits” (p.301)] obtained higher scores on three scales of the teacher occupational stress factor questionnaire (Clark, 1980), namely, lack of administrative support, working with teachers, and task overload. Kagan reported that “more idealistic teachers may have been unaware of this pressure or may have been relatively unstressed by it, perhaps due to a greater concern with the moral or ethical implications of their job” (p.301).

Another personal factor that has been investigated by teacher occupational stress researchers is self concept. According to Rogers (1951) as stated by Chorney (1997), self concept consists of one's perceptions of his or her abilities and traits in relation to others and the environment. Anderson and Iwanicki (1984) found a significant correlation
between scores on the emotional exhaustion and depersonalization subscales of the Maslach Burnout Inventory (developed by Maslach & Jackson, 1981) and lack of self esteem in teachers (r=0.44, and 0.34 respectively). Hughes, McNelis, and Hoggard (1987) as stated by Chorney (1997) found that “teachers with high self concepts were more resistive to stress and more likely to maintain a sense of personal accomplishment while working under pressure” (p.10).

Innes & Kitto (1989) and Wilson & Mutero (1989) found out a significant relationship between stress and the personality trait neuroticism (Eysenck Personality Questionnaire, developed by Eysenck and Eysenck, 1968). Mo (1991) found that “type A teachers were less burned out” (p.3), and Soh (1988) found significant correlations between teacher stress [Wilson Stress profile for teachers, developed by Wilson (1979) as stated by Chorney (1997)] and scores on an instrument designed by the researcher to measure “teachers’ sense of responsibility, willingness to take on additional, new duties, and their perception of being assigned additional duties” (p.3) (correlations on various factors ranged from r=-0.27 to -0.33). Finally, in a study based on Lazarus’s (1966) conceptualization of stress, Prakash (1991) found a significant difference between perceived demand and perceived capability in high and low stress teachers. The researcher concluded that “high perceived demand and low perceived capability produce a feeling of stress” (p.29).

In summary, the results of investigations indicated significant correlations between stress and such personal variables as external locus of control [r=0.36, Kyriacou (1980) as stated by Chorney (1997)], efficacy (r=-0.27, Tuettemann & Punch, 1992), irrational beliefs (r=0.31, Zingle & Anderson, 1990), and self concept (r= -0.45, Friedman & Farber, 1992).

BURNOUT- CONCEPT AND REVIEW

Burnout is not new phenomenon. Maslach and Schaufelic (1993) believe that it existed before the term was developed in two stories. Thomas Mann’s Buddenbrooks (1922) and Graham Greene’s a Burnout Case (1960). In these stories the main characters exhibit symptoms of burnout. In Buddenbrooks, the protagonist displays “extreme fatigue and the loss of idealism and passion for one’s job” (Maslach, & Schaufeli, 1993, p.3),
while in a Burnout Case “a spiritually tormented and disillusioned architect quits his job and withdraws into the African Jungle” (Maslach, & Schaufeli, 1993, p.3).

Until the early 1970s, there wasn’t any concept of burnout in research review, in 1974 a psychiatrist, Dr. Freudenberger, is pioneer who coined this term for first time, when he noticed that he and some volunteers who were working with him were feeling exhausted and fatigued (Maslach, & Schaufeli, 1993). He referred to the dictionary for a definition and felt that burnout explained what they were experiencing “to fail, wear out, or become exhausted by making excessive demands an energy, strength, or resources” (Freudenberger, 1974, P.159). Around the same time Dr. Maslach, a social psychology researcher was studying how professionals distance themselves from emotionally charged jobs so that they can perform their duties. She discovered that this strategy of distancing themselves had an effect on the employees’ “professional identity and job behavior” (Maslach, & Schaufeli, 1993, P.2). When discussing her findings with an attorney to the phenomena as “burnout”. She adopted the term to describe these symptoms and found that the term was immediately recognized by her interviews (Maslach, & Schaufeli, 1993, P.2).

Since than the concept gained popularity and attracted the attention of researchers and attempts were made by various authors is defined burnout. There are several definitions of burnout as used by many researchers. Most of these definitions can be broken down into three parts. The first part attempts to categorize to phenomenon, For example calling it a process, or a final stage. The second part mentions the causes of it, and the third talks about the symptoms. Apart from the fact that many of the definitions have these three components, there is little consensus regarding what burnout is. The conceptualizations range from specifying that burnout is a process, a sequential process, the final stage or endpoint of a continuum of stress, to it being a psychological syndrome (Cherniss, 1980; Golembiewski, et al., 1988; Stephenson, 1990; Maslach, 1993). There is some consensus about what its causes are. Most experts say that burnout is caused by stress in one’s job, whether it be due to excessive demands of the job, the job being emotionally draining, or negative stress (Freudenberger, 1974; Pines et al., 1981; Forman, 1982; Stephenson, 1990). The symptoms of burnout vary greatly. The conceptual properties of burnout include: exhaustion, changes in attitudes, lowered productivity and
treating people in a depersonalized manner (i.e., treating them as objects) (Pines, et al., 1981; Forman, 1982; Maslach, 1993). Christina Maslach's operational definition of burnout was derived from several years of research involving interviews, surveys, and field observations of employees in "people-oriented professions" (Maslach, 1993). She defined burnout as: "A psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity." Emotional exhaustion refers to feelings of being emotionally overextended and developed of one's emotional resources. Depersonalization refers to a negative, callous, or excessively detached response to other people, who are usually the recipients of one's service or care. Reduced personal accomplishment refers to a decline in one's feelings of competence and successful achievement in one's work (Maslach, 1993).

ASPECTS OF BURNOUT

Through their work in the helping professions, including education, Maslach and Jackson (1981) as well as Pines, Aronson, and Kafry (1981) have indicated that burnout is composed of three phases, namely: emotional exhaustion, depersonalization, and reduced personal accomplishment. Feelings of emotional exhaustion are a key aspect of the burnout syndrome. Teachers, after intensive interaction on a prolonged basis, find their emotional energies drained. Teachers soon realize they can no longer give of themselves as they were able to earlier in their careers. The following teachers' comments exemplify these feelings:

"I feel emotionally drained and fatigued at the end of the day, end of the week. I can't get up for the job anymore" (Elementary teacher with 3 years experience).

"My excitement for the job has worn off. When I first started teaching I couldn't wait for the next day to work with my students. Lately I would rather stay in bed because I'm beat" (High school teacher with 5 years of experiences).

The second aspect of the burnout syndrome is depersonalization. Here the teacher develops negative cynical attitudes toward students. Teachers can convey such attitudes in many ways, including the use of derogatory labels.

A third aspect of burnout is the loss of feeling of accomplishment from the job. This is extremely important in education, since teachers enter the profession not for
financial rewards, but because they feel they can help students. When teachers perceive themselves as no longer making a meaningful contribution through their work, they evaluate themselves negatively. The disheartening views of the following teachers describe these feelings:

“I feel no sense of appreciation for all that I do. I feel like I am wasting the best years of my life” (High school teacher with 8 years of experience).

“I never have that great feeling of accomplishment. Teaching math does not offer much of a sense of triumph or feeling that you have done a great job. You really can’t see or measure your results” (46 years old junior high school teacher).

SOURCES OF BURNOUT

A teachers’ day is filled with constant, intensive interaction with people. Teacher interact with students the most. In a study of student-teacher interaction, Jackson (1986) indicates that teachers can interact with students more than 1000 times during an average day. Students are not the only people whom teachers must work on a given day. Administrators, other teachers, parents, school board members, and community members consistently make demands on the energies of teachers. Since all teachers are involved in such situations, why do some exhibit feelings of burnout, while others do not? Recent studies have attempted to identify those teachers who have higher levels of burnout, and examine situational and individual factors that contribute to these feelings. In a study of 469 randomly selected Massachusetts teachers, Schwab and Iwanicki (1982) found that certain personal and background variables were related to levels of teacher burnout. Teachers did not differ in their feelings of burnout when they were classified according to the number of years they had taught; whether they taught in urban, suburban, or rural areas of districts; if they were married, married with children, or single; or if they had a bachelor’s, master’s degree, or more than a master’s degree. In contrast, when they were grouped according to their gender, the grade level of teaching/taught, and age, they differed.

Age was found to be a factor in feelings of emotional exhaustion and fatigue. Younger teachers had more intense feelings than their older counterparts. These results were found for both regular educators (Anderson, 1980; Schwab & Iwanicki, 1982) and special educators (Crane, 1981; McIntyre, 1981). These results obtained were found
consistent with the findings in other human service occupations (Cherniss, Egnatios, & Wacker, 1976; Maslach & Jackson, 1981). Gender and grade level of teaching/taught were related to teachers’ feelings of depersonalization. Male teachers were found to have more negative attitudes toward their students than females. High school and middle school/junior high school teachers had more negative attitudes toward their students than did elementary teachers (Schwab & Iwanicki, 1982). Also, the grade levels of teaching/taught were related to feelings of personal accomplishment on the job. Elementary teachers were found to have more frequent feelings of accomplishment than high school teachers.

Anderson (1980), in a study of 459 classroom teachers from two districts in Connecticut, examined the relationship between aspects of burnout and perceived needs deficiencies. Need deficiency refers to the discrepancy between what the individual perceives the organization is doing to foster his or her physiological, security, social, esteem, and self actualization needs and what the organization should do to foster those needs. Anderson found that in organizations that did not enhance self actualization and esteem needs, teachers were more likely to exhibit feelings of burnout.

McIntyre (1981) examined the relationship between teachers’ locus of control and aspects of burnout. His study included 469 special educators from districts in Connecticut and Massachusetts. Teachers with an internal locus of control felt they had control over events happening in their life. Externally oriented teachers felt that luck, fate, chance, or powerful others controlled events. Results of this study indicated that people with a more external locus of control evidenced more feelings of burnout than those with a more internal orientation. Two studies have examined the relationships between role conflict, role ambiguity, and perceived aspects of teacher burnout. Schwab and Iwanicki (1982) examined the perceptions of 469 randomly selected classroom teachers from Massachusetts. Crane (1981) focused on the perceptions of 403 special education teachers from eight central cities in Connecticut. The concept of organizational stress, which is the combined effect of role conflict and role ambiguity, was based on the work of Kahn, Wolf, Quinn, Snoek, and Rosenthal (1964). Role conflict refers to the simultaneous occurrence of two or more sets of inconsistency expected role behaviors for a teacher’s task or function. Role ambiguity is the lack of clear, consistent information
regarding the rights, duties, and responsibilities of teaching and how they can be performed best. Both studies found that in organizations where high levels of role conflict and ambiguity were received to exist, teachers had more frequent and intense feelings of emotional exhaustion and negative attitudes toward students. Both studies also found that role conflict and ambiguity had a minor effect on feelings of accomplishment.

In summary, the researches reviewed to date indicate that factors leading to burnout can be related to individual personality characteristics and/or situational and organizational factors. That is, the failure of schools organizes properly to meet the demands of the public as well as the needs of teachers and students can produce burnout. School programs should be planned to achieve, realistic objectives, given the resources provided by the community. These programs should be congruent with the professional needs of school staff and the educational needs of students. Effective school organization requires time for systematic planning among administrators, supervisors, teachers, and community representatives. Unfortunately, many school systems have not made a concerted effort to organize their programs properly. Too often a few key administrators make decisions concerning such critical factors as curriculum priorities, grade organization, pupil-teacher ratios, staffing patterns, performance expectations, and evaluation procedures. Studies (Cichon & Koff, 1980; Ginsberg, & Bennete, 1981) have indicated that distress results when teachers are required to implement school programs within organizational constraints over which they have had no influence. Distress results most often when teachers feel that insufficient resources have been made available to meet performance expectations. Or when curriculum or instructional directives conflict with what teacher's believe is best for their students.

BURNOUT AND ITS MANIFESTATIONS

In the beginning, when research on this topic was just starting, the symptoms were few. Dr. Freudenberger (1974) listed several physical signs of burnout, ranging from feelings of exhaustion and fatigue, to headaches and shortness of breath. He also listed behavioral signs such as quickness to anger, feelings of being overburdened, increased risk-taking, and excessive use of narcotics. A few years later, Dr. Bloch (1978) and Dr. Maslach (1977) listed this as one of the characteristics of being a burned out teacher. “A cynical and dehumanized perception of students, accompanied by deterioration of the
quality of teaching” (as cited in Walsh, 1979, p. 253). Ten year later, the number of symptoms had increased more than ten fold, as shown by Burisch (1989), who found more than 130 symptoms (as cited in Burisch, 1993).

Kahill (1988) reviewed 65 empirical articles published between 1974 and December 1984 that focused on symptoms of professional burnout. She found that the symptoms could be grouped into five categories: physical, emotional, behavioral, attitudinal, and interpersonal. In the following paragraphs each category will be explained with a list of symptoms that Kahill (1988) has found to be empirically linked to burnout, and the authors who have mentioned the same symptom in either empirical or non-empirical articles.

Professionals have been found that complain of physical symptoms ranging from fatigue to physical disease (Kahill, 1988; Greenglass, et al., 1990). Examples of some of the complains are headaches, colds, & flu, sleep disturbances, and gastrointestinal problems (Kahill, 1988). The study showed the range of significant correlation that linked burnout and health / physical condition, range from -0.16 to -0.44. While these are not strong correlation, they are non-the-less, not to be ignored.

A wide range of emotions, as well, fall into the emotional category. Some examples are anxiety, and depression (Kahill, 1988), helplessness and low morale (Kahill, 1988), irritability (Spaniol, 1979), and guilt (Stephenson, 1990). anger (Kahill, 1988), is a symptom that Kahill lists in her article but more recent research does not support a link to burnout. Stephenson (1990) found that burned out teachers reported almost the sample level of anger as healthy or worn out teachers. Kahill (1988) herself wrote that the strongest link is between depression and burnout. The other emotional symptoms need further study to be conclusive.

Behavioral heading includes personal and work habits of the employee. Behaviors such as drug and alcohol use increase as the person burns out (Kahill, 1988). Burnout and high absenteeism may be linked, but Kahill (1988) has found mixed results for this relationship. There is, however, a correlation between burnout and turnover, and burnout is related to a deterioration in the quality of service provided (Kahill, 1988).

Kahill (1988) includes job satisfaction in the attitude category but her literature review was inconclusive as to whether it was a symptom or a cause of burnout she
reported correlations between job satisfaction and burnout ranging from -0.17 to -0.87 with the majority falling between -0.40 and -0.59. Since Kahill's article Wolpin, Burke, and Greenglass (1991) did a study to determine the role of job satisfaction and found that there is a moderate effect of burnout on job satisfaction and not vice versa indicating that decreased job satisfaction is a symptom of burnout rather than a cause.

The negative attitudes of employees also fall into the attitude category. Cherniss (1980) found a negative change in attitude in his subjects when they burned out, but from what Kahill (1988) lists, Cherniss understated the problem. Kahill (1988) lists 15 negative attitudes ranging from not enjoying one's work to being intolerant and dehumanizing one's client. Some of the symptoms Kahill (1988) mentioned are cynicism, pessimism, defensiveness, desire to escape from people, callousness, and negative attitudes towards clients.

The last category covers interpersonal symptoms. Here Kahill (1988) mentions that there are two groups of people who suffer at the hands of the person being burned out. The first is the client. Studies have found that crisis telephone counselors were engaging in inhuman practices, such as "not answering the phone", and hanging up clients, and police officers verbally and physically abusing suspects (Kahill, 1988). The employee's family and friends also suffer the quality of one's personal relations, the person has fewer friends, and the quality of family life is reduced, also marital and family problems are more likely to occur (Kahill, 1988).

**BURNOUT AND RELATED CONSTRUCTS**

Due to the diversity of the definitions, causes and symptoms of burnout, it is prudent to ask whether it is separate from other related constructs (Maslach, & Schaufeli, 1993). For example, burnout is related to job stress (Maslach, & Schaufeli, 1993), depression (Greenglass, et al., 1990), and job dissatisfaction (Kahill, 1988). How does one distinguish between experiencing job stress rather than burnout?

Maslach, & Schaufeli (1993) acknowledge these overlaps and suggest that it is difficult to distinguish between job stress and burnout because they do not have clear cut boundaries separating them from other concepts, however, it is not impossible to separate them. Maslach, & Schaufeli (1993) feel that the distinction between burnout and the other concepts such as job stress, depression, and job dissatisfaction is relative. What separates
burnout from job stress is the length of time stress is experienced. What separates burnout from depression and job dissatisfaction is their context (Maslach, & Schaufeli, 1993). Maslach and Schaufeli (1993) argued that the time frame is much important in burnout. It is considered to be "prolonged job stress" where the demands of the job overwhelm the employee's resources (Maslach, & Schaufeli, 1993). This drawn-out time period is implied in the term burnout which refers to the depleting of one's reserves (Maslach, & Schaufeli, 1993). This process is consistent with Selye's (1976) model of general adaptation syndrome (Maslach, & Schaufeli, 1993). The model consists of three phases: alarm, resistance, and exhaustion. The final stage, exhaustion, occurs after prolonged exposure to stress and results in the individual's resources being drained and irreversible damage occurs. It is a last stage that is parallel to burnout, and the two previous stages can be seen as occurring in response to the job stress (Maslach, & Schaufeli, 1993). However, Maslach and Schaufeli didn't provide empirical evidence for distinguishing of these two concepts.

When separating depression from burnout, Maslach, & Schaufeli (1993) offer Warr's (1987) explanation that it is the context that makes the distinction. The idea is that depression more often occurs in any context (that is context free or did not relate to any situation), and burnout occurs in a job related context. This distinguish is not enough to differentiate the two concepts, however, Maslach, & Schaufeli provided some empirical findings to support this. The Maslach Burnout Inventory has three components: Exhaustion, Personal Accomplishment, and Depersonalization. It is the exhaustion component that is related to depression and not only one component of burnout, the two components can be considered distinct (Maslach, & Schaufeli, 1993). Job dissatisfaction has similar empirical support for it's distinction from burnout. Maslach, & Schaufeli (1993) mention that several studies have found that job dissatisfaction is negatively correlated with the Emotional Exhaustion and Depersonalization scales, but not with Personal Accomplishment. The fact that dissatisfaction is related differently to the components of burnout supports their claim that job dissatisfaction and burnout are not the same concept.

There are four major developmental theories explained below, built upon the three dimensional model of burnout proposed by Maslach et al. (1996).
CHERNISS’S MODEL OF BURNOUT

Cherniss (1980) advanced one of the earliest theories about how burnout develops from study conducted among novices. There were professionals in the field of mental health, law, public health nursing, and teaching. Cherniss (1980) suggest that aspects of the work environment and the characteristics of the individual could both function as sources of strain. For example, bureaucratic interference with task completion or goal achievement and lack of collegial relationships create doubts in the person about his/her competencies. Individuals try to cope with these stressors in many ways, such as: reducing work goals, taking less responsibility for work outcomes, becoming less idealistic in approach to the job, and becoming detached from clients or the job itself. Cherniss (1980) calls these management strategies “negative attitudes” and avers that they constitute the definition of the burnout phenomenon.

Some scholars have explored Cherniss’ view of burnout and provided some support for this conceptualization. Burke, and Greenglass (1995) found that work-setting characteristics such as inadequate induction, lack of autonomy, work overload, poor leadership, and supervision and unclear goals contributed to negative attitude changes among a sample of teachers, school departmental heads and principals.

A potential limitation of Cherniss’s theory is its over-inclusiveness. By equating burnout with attitude changes, it incorporates a wide range of potential variables under the heading burnout. These mentioned attitude changes do not define the burnout phenomenon. Burke (1989) argues the merits of this model of burnout development, but it is too broad to identify burnout as a unique construct.

GOLEMBIEWSKI’S PHASE MODEL

A more widely known theory on how burnout develops is the phase model proposed by Golembiewski and colleagues (Golembiewski & Munzenrider, 1984; Golembiewski, Munzenrider & Stevenson, 1986). They adapted Maslach’s three-component model of burnout but argued that the second component in that model, depersonalization, is the aspect that is first experienced in the sequence. Depersonalization is emotional detachment from the client. They accept that a certain amount of professional detachment is reinforced by the ethics and norms of the profession. When role demands and pressures reach a certain level, this detachment can
be transformed into depersonalization as the individual strives to deal with demands that go beyond his/her coping capacity. In Golembiewski’s view, depersonalization is the first manifestation of burnout and has the effect of impairing performance because the person recognizes an inconsistency between his/her treatment of clients and the precepts and ethics of the profession. As a result, the individual’s sense of personal achievement on the job is jeopardized. According to Golembiewski’s theory, reduced personal accomplishment is the second phase in the development of burnout.

The increasing depersonalization and the diminish sense of accomplishment (lowered effectiveness) finally lead to the development of emotional exhaustion. These elements surpass the person’s coping ability. Emotional exhaustion, therefore, has the most potency and represents the final stage of burnout development in the Golembiewski’s model. Golembiewski and his associates constructed a phase model of burnout that shows eight phases of burnout. The phase model assumes that burnout becomes more virulent as the individual progresses through depersonalization to reduced personal accomplishment to emotional exhaustion. The model also assumes that individuals in more advanced phases experience more serious consequences than those in earlier phases. Golembiewski, Munzenrider, and Boudreau (1993) and Golembiewski, Munzenrider, and Stevenson (1986) indicate that a person would not necessarily proceed through all the eight phases. As showed below:

GOLEMBIEWSKI’S PHASE MODEL OF BURNOUT

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<th>Phase</th>
<th>Depersonalization</th>
<th>Personal Accomplishment</th>
<th>Emotional Exhaustion</th>
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</table>
Although the chain events from depersonalization to emotional exhaustion provide an objective dimension, the phase levels depicted are not totally consistent with the developmental progress suggested by Golembiewski. Leiter (1993) queries Golembiewski's phase approach. He stated that although the eight phases of the model simplify the process of categorizing individuals as high or low in burnout, this perspective reduces the role of depersonalization and personal accomplishment because the critical element is emotional exhaustion. Empirically, the Golembiewski's phase model has received mixed support. Golembiewski, Munzenrider, and Stevenson (1986) reported that there is considerable support for this perspective. Despite some reservations about the utility of the eight phase model, Burke (1989) has cited evidence in support of the phase model. In contrast, Lee and Ashforth (1993) conducted a longitudinal study for an alternative perspective. From Meta analysis of the correlates of burnout, Lee and Ashforth (1996) also obtained results that are more consistent with Leiter's (1993) proposal that reduced personal accomplishment develops independently of emotional exhaustion and depersonalization, rather than being a consequences of the latter variable. In summary, the Golembiewski phase model is portrayal of the process of burnout development. It contains an inherent logic about the relationship between the three major components of burnout and a relatively simple procedure for categorizing individual along the burnout continuum.

LEITER AND MASLACH'S MODEL OF BURNOUT

An alternative for Golembiewski's conceptualization of burnout development is the perspective initially proposed by Leiter and Maslach (1988). It argues that emotional exhaustion is the critical element in the burnout process. Stressors from jobs that have high interpersonal contact with clients and individuals with significant problems lead to emotional exhaustion on the part of the human service worker. This emotional exhaustion then induces depersonalization as workers attempt to cope or deal with feelings of exhaustion. Depersonalization is essentially coping response that is called upon when other coping forms have not alleviated the strain experienced. When depersonalization occurs, the individual begins to loose a sense of accomplishment on the job because the act of depersonalizing clients undermines the practitioner's value and goals.
Depersonalization explains the relationship between emotional exhaustion and reduced personal accomplishment.

Leiter (1993) has generated a modified version based upon a structural equation modeling of the burnout process. Lee and Ashforth (1993) observe that emotional exhaustion and depersonalization shared several correlates, like role stressors, but these correlates are only marginally associated with reduced personal accomplishment. Similarly, there appears to be a stronger association between exhaustion and depersonalization than between these two variables and personal accomplishment (Lee & Ashforth, 1993). The relationship of personal accomplishment with emotional exhaustion and depersonalization may be explained better by the adequacy of resources available to the person in the work environment such as social support and skill utilization (Leiter, 1993). Reflecting on these findings, Leiter (1993) reformulates the relationship between personal accomplishments on the other factors. He depicts depersonalization as a direct function of emotional exhaustion and suggests that reduced personal accomplishment may develop independently of both emotional exhaustion and depersonalization.

In general, the model proposes that the demanding aspects of workload, personal conflict and hassles aggravate exhaustion. These aspects contribute to increased depersonalization, while the presence of resources (social support and opportunities for skill enhancement) influences personal accomplishment. Mostly, these two aspects of burnout have distinct predictors, such as coping styles, that contribute to both exhaustion and diminished accomplishment (Leiter, 1993). The reduced personal accomplishment develops alongside emotional exhaustion rather than sequentially through to depersonalization. Evidence supporting Leiter's revised model has been reported by Lee and Ashforth (1996) in a Meta analysis of the correlates of burnout, in which they examined demands and resources in relation to each of the three burnout components. Using the conservation of resources theory of job stress developed by Hobfoll and colleagues (Hobfoll, 1989), Lee and Ashforth (1996) found that emotional exhaustion and depersonalization are strongly correlated with organizational commitment and turnover intentions. Theses variables are only weakly related to personal accomplishment. On the other hand, control coping, which is parallel to Lazarus and Folkman's (1984) notion of
problem-focused coping; was more closely linked with personal accomplishment than with either exhaustion or depersonalization.

In summary, the empirical support of Leiter and Maslach's (1988) model of burnout development, particularly Leiter's (1993) reformulation of that model, has been obtained in recent research, and supports the view that emotional exhaustion should be considered as the initial outcome of excessive and chronic job demands and pressures. Depersonalization would appear to be an adaptive response by workers as they endeavor to cope with this exhaustion.

Finally, reduced personal accomplishment may be regarded as a separate element in the process and which can be influenced by emotional exhaustion but is also dependent upon other factors in the work environment as well as the person's use of coping strategies (especially control coping).

**CONSERVATION OF RESOURCES THEORY (COR) OF BURNOUT**

Hobfoll (1989) has constructed a general perspective on stress that has particular relevance to burnout in work organizations. It is very compatible with Lazarus and Folkman's (1984) transactional model of stress coping and has been used as a framework for recent empirical research in the field of burnout. The conservation of resources (COR) theory postulates that individuals have access to four major resources: object (a house and a car), conditions (a steady job), personal characteristics (self esteem), and various forms of energy (money).

The basic tenet of COR theory is that stress occurs when individuals are threatened with a loss of resources, or fail to regain resources after they have been invested. Events such as loss of one's job, impaired health and break down in personal relationships are serious forms of resource loss. In the work situation, some of the major resources available to workers are social support, personal control over their job and involvement in important decision-making processes and appropriate reward systems (Burke, 1989). The major demands that include by resource loss are: role ambiguity and conflict, role overload, inadequate resources to perform the job and unlimited demands from clients or other people in the work environment. Chronic burnout arises when there is a significant and on going drain on one's resources, particularly as individuals strive to meet the above other demands in work place.
According to Hobfoll (1989), burnout results from a process of wearing out and wearing down of a person's energy or the combination of physical fatigue, emotional exhaustion and cognitive wear out that develops gradually. At the advanced stage of burnout, a person develops a sense of helplessness and depression (self-pity). COR focuses on the general conditions under which job strain and burnout arise. Nevertheless, it offers a conceptual framework of principles that can underpin other approaches such as the Leiter and Maslach's (1988) model. The COR theory significantly increases the knowledge base of the burnout phenomenon. The actual loss of objects, situation, personal characteristics and various forms of energy can lead to attitude changes, emotional exhaustion, depersonalization and reduced personal achievement mentioned in Cherniss's theory (Burke, 1989; Golembiewski, & Munzenrider, 1984) and Leiter and Maslach's (1988) model of burnout development.

MENTAL HEALTH AND RELATED CONCEPTS

Wilkinson and O'Connor (1982) defined mental health as a congruent relationship between a person and his/her surrounding environments. In other words, the mentally healthy person interacts with environment in a manner in which the requirements and resources are congruent with the needs and capabilities of the individual.

ANXIETY: The word anxiety comes from the Latin word anxious, meaning a condition of agitation or distress (Deragatis et al., 1976). Anxiety is a common feature of most mental health problems. Lader and Marks (1971) described anxiety as a pervasive negative affect state which is present to some degree in almost all clinical syndromes and the predominant feature in some. Anxiety is characterized by a host of symptoms including shortness of breath, heart palpitations, trembling and shaking, sweating, choking, nausea or abdominal distress, numbness, dizziness, or unsteadiness, feelings of detachment, hot flashes, and the fear of losing control (Bourne, 1990).

Anxiety can appear in different forms and different levels of intensity. It ranges in severity from twinges of uneasiness, and unrest to full-blown panic attacks marked by heart palpitations, disorientation, and terror. For most individuals, anxiety is a natural part of life that involves periodic episodes of uneasiness and unrest often characterized by excessive worry (Bourne, 1990). But for some individuals anxiety can develop into chronic disorders. It can be differentiated from stress in the sense that the focus of anxiety
is more internal than external. While stress relies on one’s reaction to the external environment, anxiety is believed to be a response to a vague, distant, or unrecognized danger (Bourne, 1990). In sum, anxiety is associated with an uncertain future oriented cognitive state in which the individual anticipates the possibility of threat or harm (Kendall and Watson, 1989).

**DEPRESSED MOOD:** Depressed mood is a social-scientific term used to describe symptoms of depression. Depression is a clinical term referring to a long term state of general emotional dejection and withdrawal requiring the confirmatory diagnosis of a medical doctor (Craighead, 1980). In its most severe form, clinical depression afflicts at least 5% of the population and is characterized by a pervasive sense of sadness, lethargy, worthlessness (Nolen-Hoeksema, 1991). Depressed moods, however, are also common to everyday life. Feeling down, blue, or dejected, lacking energy, sleeping problems, emotional detachment, and haven’t pleasure feeling from aspects of life that had previously provided pleasure, are all symptoms of a depressed mood (Headey et al., 1993).

It’s important to differentiate between clinical depression and depressed mood in order to reduce the confusion created by everyday terminology. As Freden (1982) pointed out “any two individuals discussing depression are likely to find themselves at cross-purposes, simply because they are not discussing the same phenomenon”. While depressed mood trends to last for a few hours, clinical depression refers exclusively to a psychological disorder which reduces individuals to a lasting state of passively that may last for several days, weeks, months or even years. Clinical depression can make it very difficult for the depressed person to carry out his/her everyday activities, including work (Freden, 1982).

The workplace, due to its potential role in producing negative events and challenges represents a rich environment for depressed mood. In other words, work related problems, when left unchecked, have been linked to depressive symptoms (Norman et al., 1995). Weiss (1990) believes that employees in “challenging work” sooner or later experience at least a brief period of depression. He argues that depression occurs when an individual loses hope of a successful outcome and believes the fault lies in them, making continued mobilization toward the problem pointless.
Numerous authors have found that relationships exist between stress, anxiety, and depressed mood. Schonfeld (1992) found that anxiety symptoms were frequently accompanied by depressive states. Similarly, Weissman et al. (1977) found that prolonged periods of stress were positively correlated with depressed moods. Greenglass and Burke (1988) found that prolonged exposure to stressful situations increased the likelihood of developing anxiety symptoms. Similarly, global stress levels have been found to be positively correlated with various indices of psychological disorders including anxiety and depressed mood (Bhagat, 1983).

**ROLE OVERLOAD AND HEALTH PROBLEMS**

Role overload exist when the multiple roles are too great to perform comfortably (Higgins et al., 1992). It is logical to assume that when roles are too great to perform comfortably, some degree of distress will be experienced by the individual. Indeed, the relationship between role overload and global stress has been found to be strongly positively correlated by a number of researchers (e.g., Cook and Rouseau, 1984; Duxbury et al., 1991).

There have been two main approaches to the study of role overload. The first suggests that the multiple role demands of work and home domains are additive with combined overload leading to increased stress level, strain and illness (e.g., Goode, 1974; Sekaran, 1983; Greenhous and Parasaraman, 1986), the second approach, suggests that multiple occupational and domestic roles complement one another, resulting in enhanced well-being (e.g., Verbrugge, 1986). The second approach is argued to have arisen from the male based view of home as a haven from the outside world, and is argued to be less valuable in helping to explain today's rapidly changing work and family dynamics (Swanson et al., 1998). In empirical studies, role overload has been associated with increased psychological strain (O'Driscoll and Beehr, 1994), mental ill-health (Travers and Cooper, 1993), depression (Schonfeld, 1992), and psychiatric symptomatology (Rahim and Psenicka, 1996). In a comprehensive study of role overload, Abramis (1994) as stated by Murphy (2000) found that overload was significantly positively correlated with anxiety, depression, anger and job insecurity and negatively correlated with self perceptions of performance. Duxburry and Higgins (1994) provided evidence that female experience greater role overload and perceived stress than male. Such gender differences
supported by a study by Babin and Boles (1998) which found that role overload has a stronger negative impact on employee well-being for female in comparison with their male counterparts. One critical difference in the role structures of men and women are the relative responsibilities in work and family life. The combination of work and home responsibilities creates unique stressors for women, who find themselves constantly trying to balance the needs of two mutually incompatible domains (Barnett et al., 1987; Rosenfield, 1989; Simon, 1995).

GENDER DIFFERENCES IN MENTAL HEALTH

Whether men or women experience more psychological problems has been the subject of much debate in the literature. Most of the literature suggests that women are more likely to view themselves as having emotional problems, to seek help for such problems, and to be prescribed more medications for the treatment of psychological disorders (Cleary and Mechanic, 1983; Roxburgh, 1996; Perez and Wilkerson, 1998). In addition, there have been studies that found that women are more likely than men to experience stress (Defares et al., 1984), anxiety (Defares et al., 1984), and depression (Cleary and Mechanic, 1983). Although most studies show that women report comparatively higher levels of anxiety, Defares et al. (1984) were pointed out that men exhibit comparatively more symptoms of prolonged distress and anxiety, including hypertension and heart disease. Barns and Maple (1992) argue that with women seem to figure more frequently in mental health statistics; men outnumber women in a number of “deviant” behaviors including alcoholism, drug abuse, crime, violence and suicide. These findings may suggest that females are more willing to report psychological difficulties and seek help than men, while men are more likely to grapple with mental health issues alone, and it’s leading to serious long term consequences for both their mental and physical health.

THE RELATION OF PHYSICAL AND MENTAL HEALTH (DEPRESSION)

Health is a multi dimensional concept that includes both physical and mental or psychological components. Zautra and Hempel (1984) reviewed eighty one studies that tested the relationship between physical health status and various subjective measures of psychological health or well being. Based on the evidence reviewed, they conclude that a direct relationship exists between physical health status and subjective well being.
The relationship between physical illness and depression is thought to be one of mutual reinforcement whereby a positive feedback cycle is composed of direct and indirect effects: illness leads to depression which in turn leads to further illness (Aneshensel et al., 1984). Similarly, Cassileth et al. (1984) observe a direct relation between declining health status and mental health scores. Further, a longitudinal study of elderly women by Heidrich (1998) found that causal direction was from physical health decline to depression, but not from depression to a decline in physical health.

STRESS AND BLOOD PRESSURE

The research on blood pressure is large and growing, as scientist look to discover more factors that affect the blood pressure levels in people. Specifically in psychosomatic medicine, which is the study of physical disorder originating in or aggravated by emotional process (Guralnik, 1987), scientist are looking at the relationship between health and mood, the mind and body connection. They found that hypertension and other disease such as cardiovascular disease that is affected by elevated blood pressure levels (Pickering et al., 1982). Also high blood pressure has a negative effect on neuropsychological test performance, cognitive function, mental flexibility, learning, memory, and abstract reasoning (Waldstein, 1995, as cited in Elias et al., 2000). Scientists have found that certain moods such as anger, anxiety, and hostility are associated with stress and elevated blood pressure levels (James, et al., 1986).

MENTAL AND PHYSICAL HEALTH IN RELATED TO EMOTIONAL INTELLIGENCE

The popularity of the emotional intelligence during the past decade has led researchers to examine its potency in various areas of human functioning. Among the areas with the strongest connections to EI is developmental, clinical and counseling, industrial and organizational psychology. Thus, it has been found that trait or ability EI are related to life success (Goleman, 1995; Bar-On, 2001), life satisfaction and well-being (Martinez-Pons, 1997; Palmer, Donaldson, & Stough, 2002), interpersonal relationships (Fitness, 2001; Flury & Ickes, 2001), academic achievement (Van der Zee, Thijs, & Schakel, 2002; Parker, Smmerfeldt, Hogan and Majeski, 2004), occupational stress (Bar-On, Brown, Kirkcaldy, & Thome, 2000; Nikolaou & Tsoulosis, 2002; Slaski & Cartwright, 2002), work success and performance (Dulewicz & Higgs, 1998; Weisinger,
In recent years, there has been an increasing interest in how emotional reactions and experiences affect both physical as well as psychological health. For example, it has been claimed that negative emotional states are associated with unhealthy patterns of physiological functioning, whereas positive emotional states are associated with healthier patterns of responding in both cardiovascular activity and immune system (Booth-Kewley & Friedman, 1987; Herbert & Cho, 1993).

Salovey, Rothman, Detweiler, and Steward (2000) discussed extensively the importance of emotional states on physical health. Furthermore, extended research in the field of health psychology has demonstrated the effect of negative mood or unpleasant emotional experiences on a number of habits or behaviors that have been accused for unhealthy conditions, such as smoking (e.g. Brandon, 1994) and drinking (e.g. Cooper, Frone, Russell & Mudar, 1995). Several studies have also revealed a direct connection between emotional arousal (especially anger) and cardiovascular consequences (Kamarck, & Jennings, 1991; Smith, 1992; Friedman, 1992).

In another study, Salovey, Bedell, Detweiler, and Mayer (1999) reported that individuals who can regulate their emotional states are healthier because they “accurately perceive and appraise their emotional states, know how and when to express their feelings, and can effectively regulate their mood states” (P. 161). This set of characteristics, dealing with the perception, expression, and regulation of moods and emotions, suggests that there must be a direct link between EI and physical as well as psychological health. Indeed, Taylor (2001) argues that if you are emotionally intelligent then you can cope better with life’s challenges and control our emotions more effectively, both of which contribute to good psychological and physical health. Moreover, Bar-On (1997) includes stress management and adaptability as two major components of EI, while Matthews and Zeidner (2000) stated that “adaptive coping might be conceptualized as emotional intelligence in action, supporting mastery emotions, emotional growth, and both cognitive and emotional differentiation, allowing us to evolve in an ever-changing world” (p. 460).
Additionally, Salovey (2001) claims that the failure of emotional self-management leads to significant influences on health, for example, excessive cardiovascular reactivity. He suggests that a way of coping for people who are low on this dimension is through smoking, drinking, and eating fatty foods, which can also lead to long term health damage. However, he also emphasized that suppressing negative feelings is not a healthy strategy either, suggesting that emotions' manifestation has a positive impact on physical health when people are confident about their abilities to regulate them. He maintains that the best way of dealing with the expression of our feelings in terms of our health is through the rule of “golden mean”. We may need to express negative feelings, but in a way that is neither mean spirited nor stifled” (p. 170).

In another interesting study, Ciarroch, Deane, and Anderson (2002) identified the moderating role of EI in the relationship between stress and a number of measures of psychological health, such as depression, hopelessness and suicidal ideation among young people. These studies, but mainly the core essence of EI, indicate that a negative correlation exists between stress, ill health and EI levels, assuming that people scoring high in EI are expected to cope effectively with environmental demands and pressures as those commonly assessed by occupational stress and health measures (Nikolaou, & Tsaousis, 2002; Slaski, & Cartwright, 2002).

Dulewicz, Higgs, and Slaski (2003), using a relatively small sample of retail managers, examined the role that variables such as stress, distress, morale and poor quality of working life play in everyday life. They demonstrated that EI was strongly correlated with both physical and psychological health.

RESEARCHES RELATED TO MENTAL AND PHYSICAL HEALTH

Kyriacou and Sutcliffe (1978) used a questionnaire, developed specifically for the study, to assess sources of teacher stress. The same questionnaire included a checklist of stress-related symptoms (e.g., headache, tachycardia, and hypertension). Each of the 17 physical symptoms was separately correlated with the single-item stress measure. All correlations (ranging from r=0.1 to r=0.61) were statistically significant.

Meir et al. used a 12-item burnout inventory developed by Pines, Aronson, and Kafry (1981). They found a very high correlation between burnout scores and somatic complaint score (r=0.78).
Belcastro and his associates conducted three studies on the effect of burnout in teachers (Belcastro, 1982, Belcastro & Gold, 1983, Belcastro & Hays, 1984). The main difference among these investigations is that they included different populations. All of these studies used the MBI and the Teacher Somatic Complaint and Illness Inventory (TSCII) to measure predictor and criterion variables, respectively. The TSCII asks subjects to report only diagnosed illnesses (from a list of 11), when they occurred (before or after becoming a teacher), and the presence of somatic complaints (from a list of 38).

On the basis of chi-square analysis, Belcastro (1982) found that gallbladder problems and cardiovascular disorders were significantly more frequent in the burned out group than in the non burned out group. Neither of these illnesses had been diagnosed prior to the start of the subjects' teaching career.

Belcastro and Gold (1983) found no significant difference in the incidence of diagnosed illness for the burned out and the not burned out groups. A discriminate function analysis, however, indicated that in approximately 91% of the cases burnout status could be correctly predicted on the basis of frequency and intensity of somatic complaints.

Belcastro and Hays (1984) used chi-square analyses and found that 2 of the 11 physical illnesses (namely: ulcers and kidney disorders) occurred more frequently in burned out teachers and occurred after these subjects had begun teaching. The authors acknowledge, however, that low frequencies in some of the cells warrant caution in the interpretation of the results.

Golaszewski, Milstein, Duquette, and London (1984) published a preliminary report on the Buffalo teacher stress intervention project. A large number of organizational stressors were correlated with several physical measures (i.e., blood pressure, total cholesterol levels, physical fatigue, gastric arousal, and prescription drug use). Most of the organizational stressors investigated were found to be significantly correlated with some self-reported health indices (i.e., gastric arousal and physical fatigue), but not with objective biomedical measures (i.e., blood pressure and cholesterol levels). Chi-square analyses indicated that compared to national norms, the sample investigated in this study had significantly higher blood pressure and total cholesterol levels. The authors'
conclusions that occupational stress may be an important determinant of this high health risk, however, are not consistent with the results of the co relational analyses.

Sutton (1984) used a structured interview, based on the 1977 Quality of Employment Survey, and a self-administered questionnaire, designed specifically for the study, to measure the predictor. A health questionnaire, also adopted from the 1977 Quality of Employment Survey, was used to measure somatic problems. Nine out of 13 stress factors (e.g., role ambiguity, student discipline, and interpersonal conflicts) were significantly correlated with poor health scores. Role demands and role conflicts were found to be especially powerful predictors of physical strain.

Kyriacou and Pratt (1985) conducted study primarily designed to investigate the relationship between teacher stress and psychopathology. The Teacher Event Stress Inventory (TESI), an adaptation of Holmes and Rahe's Social Readjustment Rating Scale, was used to measure teacher stress, and the MHQ was used to assess the criterion. For both male and female teachers, significant correlations were found between the TESI and the somatic scale of the GHQ.

Litt and Turk (1985) were interested in studying the relationship between a set of predictors (e.g., school climate, coping resources available, perceived occupational stress) and a cluster of criterion variables (e.g., job satisfaction, absenteeism, emotional and physical health). A canonical correlation analysis was used to determine the ability of the independent variable set (indices of occupational stress) to predict the set of dependent measures (indices of ill health). Teacher stress was found to account for 19% of the variance in poor health.

Brown et al. (1986) investigated stress and coping patterns in a random sample of university personnel which included faculty and staff. The primary instrument used was the measures of occupational stress, strain and coping. In this study, "some form of body signal such as headache" was found to be the most common sign of stress. Such body signals were reported by 60% of the faculty and by 67% of the staff.

Holt, Fine, and Tollefson (1987) conducted a study intended to determine the relationships among hardness (a personality characteristic first introduced by Kobasa, 1979), stress, and burnout in an all-female sample of regular and special education teachers. Hardiness was measured with two established instruments, occupational stress
was assessed with the TESI, and burnout was measured with the MBI. Participants were also asked to report "the number of stress-related physical or mental illnesses they had experienced in the last two years". Using the median-split approach, the sample was divided into a high-stress group and a low-stress group on the basis of the TESI scores. Each of these two groups was further subdivided into a high-burnout group and a low-burnout group on the basis of MBI scores. Chi-square analyses revealed a significantly higher frequency of physical illness in the high stress-high burnout group. Furthermore, a significant correlation was found between stress levels and physical illness.

Hock (1988) developed a new instrument to measure burnout in teachers. Its 66 items are divided into five different sections, including a stress-dissatisfaction subscale, a burnout subscale, and a somatic difficulties subscale. The health measure consists of a checklist of 12 somatic problems experienced in the previous 12 months. A highly significant correlation was found between scores on the stress-dissatisfaction section and scores on the health section of the same questionnaire.

DeFrank and Stroup (1989) measured the predictor variable with a revised version of the Teacher Occupational Stress Factor Questionnaire (TOSFQ). A job satisfaction scale was used in addition to the stress measure. The criterion variable was measured with a scale that asked regular and special education teachers to rate the frequency and severity of 27 somatic complaints. Scores on the TOSFQ were significantly correlated with scores on the physical symptoms scale, but not after job satisfaction was added to the multiple regression models. The correlation between level of job satisfaction and somatic symptoms was highly significant. Out of the four factorial derived dimensions of the TOSFQ, only "student issues" significantly predicted the criterion and after job satisfaction was entered. This suggests that measures of occupational stress might not be as good predictors of health outcomes as job satisfaction measures, or that job satisfaction is an important moderator of the stress-health relationship. Stress, in other words, might result in adverse health outcomes only if it is associated with low job satisfaction.

Trendall (1989) collected several measures of stress, including Holmes and Rahe's Social Readjustment Rating Scale, from a sample of regular and special education teachers. Health information, obtained with the GHQ, however, was gathered from about 30% of the sample. Primary school teachers, teachers in the 30-39 age group, and
teachers reported more "health problem". Health problems included psychological or physical difficulties or both of them.

Greenglass, Burke, and Ondrack (1990) were conducted a research with large sample of Canadian school personnel. In this research, burnout was assessed with the MBI, and a health index was obtained by asking participants to report whether they had been diagnosed with any of six diseases (i.e., hypertension, diabetes, ulcers, migraine headaches, coronary heart disease, and asthma/allergies). Medication use was also determined, but no details on this measure are provided. Psychological status was measured with the Hopkins Symptoms Checklist (HSCL). For the total sample, no relationship was found between burnout scores and health status, although a high and statistically significant correlation is reported between the MBI and the somatization scale of the HSCL. For the male sample, a significant correlation was also found between MBI scores and medication use.

Pierce and Molloy (1990) administered questionnaires to assess differences between burned out and not burned out teachers on 25 interrelated variables, including two health measures. Burnout status was assessed with the MBI. Measures of health included self-reported number of sick days during the previous year and rate how frequently they experienced each of 25 symptoms during the previous year. High burnout and low burnout teachers were compared on each of the 25 outcome variables with a series of t-tests. The physical health of teachers in the high burnout group was significantly worse than the physical health of teachers in the low burnout group. The high burnout group also had significantly more absences.

The 21-item teacher burnout scale was used as the predictor measure by Seidman and Zager (1991) and was filled out by regular and special education teachers. Participants were also asked to rate the frequency of occurrence of several psychological and physical problems. Scores on four subscales of the burnout measure were separately correlated with eight physical symptoms (colds, headaches, stomachaches, sexual difficulties, insomnia, hypertension, gastrointestinal disorders, and heart disease). Correlations ranged from 0.14 to 0.46 and, due to the large ample size, were all highly significant.
Hendrix et al. (1995) showed that prolonged episodes of psychological strain including stress, anxiety and depressed mood may weaken the immune system and make individuals more susceptible to physical health problems. It has been suggested by some researchers that stress plays a role in all forms of physical illness (Smith and Siwolop, 1988), and such an assertion is consistent with the view that the mind and body are inseparably related when it comes to mental and physical health. For instance, stress is believed to be an aggravating factor in the onset of physical illness (e.g., gastro-intestinal problems). In addition, stress is believed to aggravate the original physical symptoms in a person who is already ill. The most wildly researched health consequences associated with psychological distress are almost gastro-intestinal problems and cardiovascular disease (Murphy, 1991).

Cohen (1991), Cobb et al. (1996), and Cohen et al. (1998), in the separate researches have been shown that stress can reduce the body immunity. Kaplan et al. (1982) have found that stress can increase the atherosclerosis (a precursor to cardiovascular disease) in animals. Yusuf et al. (2004) and Black (2003) in separate researches have found that stress can increase the risk of cardiovascular disease and Ironson (1992) as stated by Foster (2007) have shown that it can increase hypertension in humans. Black (2003) has reported that stress can increase insulin resistance and increase likelihood of headaches (De Benedittis, et al., 1992) and other forms of chronic panic (Bomholter et al., 2004). Chronic disease are new a major cause of death and disability in developed countries (World Health Organization, 2005), and many such illnesses are exacerbated by stress (Lutgendorf, et al., 1995; Leserman, et al., 2000; Mohr, et al., 2004). Stressful conditions and circumstances also associated with higher rates of behaviors that often contribute to poorer health outcomes such as smoking, substance use, and disordered eating. Populations who live in environments characterized by higher levels of stress have higher rates of smoking than the general population, and increased mortality from lung cancer and chronic obstructive pulmonary disorder (Colby, et al., 1994). A longitudinal study that examined this phenomenon more specifically showed that Navy seamen from the United States smoked more cigarettes on days of high stress (Conway, et al., 1981). Stressful life events and chronically stressful life conditions have been also linked to the onset of bulimia (Welch, et al., 1997), and higher assumption of
alcohol (Linsky, et al., 1985), and it has been reported that alcohol may be used as self-medication by people experiencing stress-related disorders such as anxiety (Zimmerman et al., 2003). An illustrative prospective community study by Zimmerman et al. (2003) of over 3000 adolescents and young adults showed that those with certain anxiety disorders (social phobia and panic attacks) were more likely to go on to develop problems of abuse or dependence on alcohol or other substances over a four year follow-up period.

Totally, the literature reviewed appears to support the notion that occupational stress and burnout are associated with poor health in teachers. This appears to be the case regardless of whether the subject population includes regular, special education, or college teachers.