

THE CORRELATION BETWEEN CREATIVITY  
AND BURNOUT IN  
PUBLIC SCHOOL CLASSROOM TEACHERS

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
In partial fulfillment of the  
Requirements for the degree of  
Master of Social Work

in

The School of Social Work

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August 2009

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## ABSTRACT

Burnout of teachers in the public schools is affecting the quality of education the students are getting. Incorporating creativity into one's life on a regular basis produces has the potential to heal both physical and emotional complaints. The hypothesis of this study is that there is a negative correlation between creativity and the intensity of the symptoms of burnout in teachers. An exploratory/descriptive study utilizing a non-experimental, cross-sectional design was used with a non-probability sample of 19 classroom teachers. A survey was given to public school classroom teachers in two schools in St. Martin Parish, Louisiana. There were no correlations found between creativity and any of the aspects of burnout that were tested (i.e., emotional exhaustion, depersonalization, and reduced personal accomplishment), perhaps due to the small sample size. However, there was a correlation between years of experience and depersonalization, one of the components of burnout ( $r = -.496, p < .05$ ). More objective research still needs to be done, particularly longitudinal studies.

## INTRODUCTION

Social workers in the field encounter the cycle of poverty on a daily basis as they seek to help those caught up in this cycle. Disenfranchised children and their parents often look for a way out, hoping to become successful in sports and music. Some may turn to crime for financial gain. Still others look to the educational system as the opportunity to better the state of their existence.

Nearly a third of high school students drop out of school with only 2 years left until graduation (Bridgeland, DiIulio, & Morison, 2006). More than half of those students come from disadvantaged backgrounds. New Orleans CityBusiness ("High School Dropouts," 2007) stated that Louisiana high school students from the class of 2006 who dropped out cost the state \$6.5 billion in wages that went unearned. A high school graduate made an average of \$9,000 more annually than an individual who dropped out.

When solutions are sought to improve the educational system, attention quickly turns to the classroom teachers (M. N. Dicharry, personal communication, September 27, 2007). Pressure builds for teachers to do more to improve students' test scores. Classroom teachers deal with increasing violence in the schools, less support from the public and parents, and demands for accountability amid increasing paperwork and workload (Farber, 2000). School social workers, according to the job description by the Bureau of Labor Statistics (n.d.), provide social services and support to students and their families to improve students' academic functioning. Although the nature of their work with the students is of assistance to the classroom teachers in their teaching efforts, school social workers do not provide direct services or support to these teachers. These are some of the circumstances that put teachers at risk for succumbing to burnout, which is defined in the literature as emotional exhaustion, depersonalization, and reduced personal

accomplishments from prolonged work situations that are emotionally demanding (Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Greenglass, 2001; Maslach, 2001).

As teachers begin to experience symptoms of burnout, they become less effective in the classroom (Bryne, 1998). Their performance suffers, and they exhibit a reduction in their interest in students. In fact, negativity begins to surface that affects their co-workers as well as their students. Yong and Yue (2007) explain that teacher attrition increases mostly due to the emotional and physical ramifications of burnout, which results in an instability in the students' learning career. In addition, one of the devastating and more subtle damages to the students that burnout causes is the lack of emotional support the teacher is able to give students individually (Yong & Yue). The authors further stated that students who do not have, for whatever reason, the encouragement at home to excel in school will often get that from a dedicated and concerned teacher. Furthermore, healthy teachers are often the first to recognize problems that students have and refer them to the appropriate social services. The support that teachers provide students is far beyond the curriculum and expends much of their energy.

Teachers' experiencing the symptoms of burnout is one focus of this paper. Another focus is the topic of creativity. Creativity is defined by Carl G. Jung (1966a) as an autonomous archetypal energy that resides in the psyche of the individual. It is a part of everyone's nature just like the ability to think. Teachers are expected to be creative in their teaching (Christensen, 1981) and even urged to encourage their students to be creative. However, little attention is given to creativity as a source of renewal and revitalization. Engaging in creative endeavors without emotional reward or satisfaction can deplete one's energy source (Jung, 1966b). However, engaging in a creative activity, one comparable to play, for example, and doing it for the pleasure of doing it and not for the results, can replenish one's own inner energy (von Franz, 1972). This

form of creativity is healing and could be used in those circumstances where burnout has depleted one's energy.

The purpose of this study is to determine if there is a correlation between creativity and burnout among public school classroom teachers. To set the stage there will be a discussion on the nature, causes and effects of burnout, particularly as it applies to teachers. There will also be a discussion of creativity and its effects, both physiological and psychological. There is a wealth of research with reference to burnout, but a modest amount on interventions for burnout. Correspondingly, there is also a considerable amount of research with regards to creativity, even its healing feature. However, there is a lack of information on whether creativity, as defined here, has any relationship to burnout or to the symptoms of burnout.

## REVIEW OF LITERATURE

### Burnout

Definition of burnout. My candle burns at both ends; / It will not last the night (Millay, 2002, p.47). This opening line from the poem “First Fig,” by Edna St. Vincent Millay, is a striking analogy of burnout. Senior (2006) stated that the term burnout was first introduced with Greene’s novel, A Burn-Out Case, in 1961. Later, in the 1970s, Herbert Freudenberger (as cited in Senior) used it to denote a common social problem found with workers. Soon after, the term became a familiar part of society’s discourse as the burnout syndrome began to enter the offices of mental health professions. For a time it was looked upon as a “pop psychology” phenomenon until research conceptualized the syndrome with empirical studies. Since the term was first coined, Gold (2001) observed that many different definitions have developed, with all having the main component of fatigue. Burnout, as defined by Maslach et al. (2001), is a three dimensional syndrome consisting of emotional exhaustion, depersonalization, and reduced personal achievement that results from chronic stress in interpersonal relationships.

Christina Maslach (2008) is one of the pioneering researchers on burnout. She developed the Maslach Burnout Inventory (MBI), which is still considered the most reliable and valid instrument on measuring burnout. There are different MBI measures for particular groups (Maslach et al., 2001). The MBI-Human Services Survey (MBI-HSS) was designed for those in the human services and health care services. The MBI-Educators Survey (MBI-ES) was the next version developed to focus on those in the teaching professions. These tests were designed to capture the three dimensions of burnout as defined by Maslach, which are emotional exhaustion (i.e., fatigue), depersonalization (emotionally withdrawing), and reduced personal accomplishment (lessening of self-efficacy) (Maslach, 2001). Interest in burnout and an

increasing need for a measure in other occupations that were not as person oriented became apparent. The MBI-General Survey (MBI-GS) was then developed to test the same components but described slightly differently. There were three areas identified in the MBI-GS: exhaustion, cynicism (distancing one's self from his or her job), and reduced professional efficacy. The different forms of the MBI are the only measurements that assess all three dimensions of burnout. Other measures assess just one or two dimensions.

The first symptom of burnout reported by most individuals is severe fatigue, or an emotional exhaustion from one's job (Maslach et al., 2001). This severe fatigue is usually what individuals experience when they complain that they are "burnt out." As an individual begins to experience the exhaustion, in an instinctive reaction to cope with the overload, she or he may begin to distance herself or himself emotionally from others and from her or his own work. This distancing is the second symptom mentioned. It is frequently seen in human service professionals because they have to be aware of and responsive to the service recipients. Schaufeli, Maslach, and Marek (1996) found that 10% of those in the social service profession burned out between 1 and 5 years on the job. Maslach and colleagues (2001) stated that the distancing is a form of depersonalization where the individual begins to view the service recipients as impersonal objects related to his or her job. The authors found research that showed distancing/ depersonalization as an instinctive reaction to the exhaustion, which also has a strong association with cynicism.

Maslach et al. (2001) viewed the third aspect, reduced personal accomplishments, as more complex. Some work conditions with persistent unrealistic demands that lead to exhaustion and cynicism may also reduce the efficacy of the worker. In addition, the effectiveness of the worker can be affected by exhaustion and depersonalization. In spite of these situations, research

shows that this lack of efficiency seems to develop parallel to the exhaustion and depersonalization. Their research presented findings that showed that when there is emotional exhaustion and depersonalization co-occurring with work overload and social conflict, the lack of efficacy was more likely related to a lack of relevant resources, such as social support, particularly support of one's supervisor, feedback, and participation in decision making.

After the emotional exhaustion, distancing, and feelings of ineptitude and discontent with the job, what begins to manifest are stress-related symptoms that have no physiological basis, as well as problems concentrating, negative feelings, and irritability (Maslach et al., 2001). Schwab, Jackson, and Schuler (1986) stated that burnout is a psychological process. There are emotional and attitudinal stages one goes through as a result of experiences at his or her employment.

Schaufeli and colleagues (1996) stated that although there are different definitions of burnout, they all have common elements. For example, definitions typically describe mental and/or emotional fatigue, exhaustion, and depression; mental and behavioral symptoms; work-related origin; symptoms in previously symptom-free individuals; and decreased effectiveness and work performance because of one's own negative behaviors and attitudes. Furthermore, burnout occurs more frequently among those who suffer from depression or anxiety and anger problems (Schaufeli et al.).

#### Causes and Effects of Burnout

Although burnout is a term that refers to a stress-related syndrome, it is not a synonym for stress (Gold, 2001). Burnout is caused by stress, but it has the added dimension of not having an outlet for the stress. Schwab (1983) found that individuals are more likely to show signs of burnout if they work in situations that call for intense, prolonged, and constant interactions with others. Gold asserted that there are various reasons why teachers will succumb to the symptoms

of burnout, including escalating violence in schools, lack of support from the community, social and situational job stresses, role conflicts and ambiguity, paperwork pressures, and one's personality characteristics. Gold also suggested that those who are obsessional, passionate, idealistic and dedicated are more prone to burnout. Kokkinos (2007) stated that both job stressors and personality characteristics, such as neuroticism and conscientiousness, were associated with burnout dimensions. Neuroticism was a common predictor, especially for the dimensions of emotional exhaustion and depersonalization, with conscientiousness being a predictor of personal accomplishment.

Maslach et al. (2001) noted that burnout is an individual experience that is linked to a specific work context. For example, the authors contended that burnout can occur when expectations for work output are greater than time allotment. This appears to be the most notable cause for the symptom of exhaustion. Burnout may also occur when role conflict and role ambiguity are present, such as when there are conflicting demands on the job that have to be met. Role ambiguity happens when there is inadequate information to do the job well. Another cause that Maslach et al. looked at was inadequate job resources, such as a lack of social support from supervisors and co-workers. Job resources that also have an impact on workers are information and control. Lack of autonomy, having little say in decision making, and inadequate feedback are other inadequate job resources. Maslach et al. further suggested that the emotion-work components (such as being required to be emotionally empathic and/or to show or suppress emotions on the job), contribute to burnout. Some of these emotional components would be neuroticism, which includes traits of anxiety, hostility, depression, self-consciousness, and vulnerability; neurotic individuals are emotionally unstable and prone to psychological distress. Another personal characteristic contributing to burnout would be Type-A behavior, which

includes competition, time-pressured lifestyle, hostility, and an excessive need for control. Individuals who are “feeling types” instead of “thinking types” according to Jung’s model of typology, are other personal characteristics since these types are more prone to cynicism. Maslach et al. also stated that new research is looking into the larger social, cultural, and economic influences that impact one’s propensity for burnout.

Job performance has been the most widely studied effect of burnout (Maslach et al., 2001). Job turnover, absenteeism, and the intention to leave a job have been found to impact worker efficiency and effectiveness, resulting in dissatisfaction and a lessening of commitment to the job. Maslach and colleagues found that these effects have an infectious quality that touches coworkers, especially with workers’ negativity and personal conflicts, all of which make a person more susceptible to developing apathy towards his or her employment. Research (Maslach, et al.) has focused on attrition and apathy from emotional exhaustion, depression, and job dissatisfaction. Maslach et al. noted that the early studies focused on the burnout issues resulting from fatigue and depression. Furthermore, these authors stated that recent studies are beginning to look closer at the physical responses to burnout and how much they in turn result in attrition and apathy. Maslach (2001) also asserted that most of the research on burnout and health refers to physical health. Maslach suggested instead that burnout affects a person’s mental health, which subsequently affects one’s physical health. She further stated that research is beginning to focus on the mental and emotional aspects of burnout and that more research needs to be done in that area.

#### Physiological and Psychological Effects

Two studies looked at the ramification of burnout on physiological and psychological states. First, Toppinen-Tanner, Ojajrvi, Väänänen, Kalimo and Jäppinen (2005) found a

correlation between increasing levels of burnout and sick leave absences among teachers. They found that absenteeism was higher for the high burnout groups because of mental and behavioral ailments that led to mental health problems such as depression and a decreased mental functioning. In the second study, Bauer et al. (2005) found that the leading physical problems resulting from burnout were stress-related conditions of the circulatory, musculoskeletal, and respiratory systems. This latter research also found that those with burnout symptoms showed increasing rates of early retirement because of psychiatric and psychosomatic diagnoses.

Although burnout is impacting the welfare and wellbeing of those experiencing it, most of the research looked at defining burnout and identifying its causes and consequences. Little research has focused on factors that mitigate burnout, especially among teachers. Improving the organizational structure to make the work place more efficient, providing upper-level management training for administrators to provide workers with more support, and offering support groups have been suggested as techniques for reducing burnout in teachers (Bryne, 1998; Yong & Yue, 2007). Stress reduction techniques and talk therapy are the most frequently used interventions for teachers experiencing burnout regardless of their complaints (Farber, 2000). Farber concluded that techniques need to be tailored to the personality of each teacher. Music therapy (Cheek, Bradley, Parr, & Lan, 2003) and poetry writing (Leggo, 2005) are other techniques that have been recommended. Other suggestions for addressing burnout take the approach of making changes in the environment (Yong & Yue). Kokkinos (2007) cautioned that designing and implementing interventions for burnout needs to take into account the different variables in burnout, (i.e., emotional exhaustion, depersonalization, and reduced personal accomplishment), as well as the individual personality characteristics of the individual experiencing the burnout.

Maslach et al. (2001) stated that early interventions for burnout on the job focused mostly on person-centered coping skills. This was not found to be effective in burnout prevention. However, there are some organizational and environmental changes that are being found to be effective. These would be support from administrators, especially with respect to discipline and student attitudes, as well as relief from increasing workload and paperwork. Maslach et al. stated that because burnout can manifest itself as any one or more of its components (i.e., emotional exhaustion, depersonalization, and reduced personal accomplishment), interventions need to address the specific component that is presenting itself, either as prevention or as treatment. Maslach et al. suggested that looking at burnout as a public health issue instead of as a medical issue could prove beneficial. This would mean looking for clusters of burnout, their similarities and differences in symptoms, organization, environment, and support. This information could prove valuable in creating a workplace that could minimize the risks of burnout. .

Coping skills can help a person deal with the effects of burnout, especially with emotional exhaustion and reduced personal accomplishment. Control coping skills in particular are efforts to change one's situation (Schaufeli & Greenglass, 2001). Schaufeli and Greenglass stated that control coping skills can help a person reduce the degree of burnout he or she might experience. The authors added that recent studies have been focusing on the prevention of burnout on the job by developing individual and social programs that promote control coping and self-determination.

### Teacher Burnout

One criterion for diagnosing burnout in teachers includes a definite decrease in job performance as reported by students, co-workers, supervisors, and principals (Schaufeli et al., 1996). However, before diagnosing, it is important to first determine whether there is

incompetence, major psychopathology, or family problems, as these later situations would preclude a finding of burnout. Schwab et al. (1986) found that some of the sources of burnout for teachers were organizational conditions (e.g., lack of support from administration, supervisors, and co-workers; role ambiguity; and feelings of not being able to live up to personal goals) and personal characteristics (e.g., age, since younger teachers tend to burn out faster). Schwab et al. also maintained that an early sign of burnout in teachers is attrition. For example, those suffering from emotional exhaustion were more likely to give up and leave because of illness. Others remained on the job, but were not able to be emotionally invested in the job or in co-workers. Job dissatisfaction and/or apathy also show up as an early sign of the burnout syndrome. Lastly Schwab and colleagues found that the quality of life for these individuals decreased.

Schwab (1983) studied burnout, specifically as it concerned teachers, who are called upon to have prolonged, intensive, and continuous interface with others, which sets them up for burnout. These interactions are with their students, cohorts, the parents of their students, administrators, supervisors, public officials, and the general public and seem to be one of the reasons teachers begin to experience emotional exhaustion early in their careers. To cope with the emotional exhaustion, teachers often begin to depersonalize (Schwab). As the depersonalization increases, teachers begin to develop and express negative attitudes towards their job and their students. As they begin to lose a feeling of accomplishment, teachers evaluate themselves negatively. Naturally, these effects of burnout spill over into their personal lives where they experience marital and family problems (Schwab). Teachers suffering from burnout syndrome often leave the profession, develop health problems, increase their use of alcohol and drugs, and have a negative effect on their colleagues, students, and the school in which they work.

Maslach et al. (2001) found that married people, women, older people, and those with more experience have a lower rate of burnout. Also, teachers who are parents and those with a strong supportive family life fare better with regard to burnout, since these are the people that seem to have more perspective and experience. Maslach et al. stated that those who feel their work is significant and their profession is a calling learn to cope with and even recover from burnout.

Howard and Johnson (2004) conducted a qualitative study of teachers who did not burn out to assess what characteristics or strategies they used. They were looking for what's going right. Their study looked specifically for protective factors, those qualities or techniques used by teachers at risk for becoming burnt out. Some common factors were found among all the teachers interviewed (Howard & Johnson). These teachers had a strong moral purpose in their profession and a strong belief in their own ability to control the situations they were in. If things did not go right for them, they did not personalize the occasion but instead took the opportunity to learn from it. Another protective factor was that they all had a strong support system. Each received support from their family and friends, as well as from other teachers and especially from the school leadership. When beginning their tenure, they had all been mentored by senior or more experienced colleagues. Another protective factor that was found was that these teachers were competent and felt a sense of achievement. Howard and Johnson noted that burnout is an international problem and that all teaching situations have the potential for burnout; however, they contend that along with the ongoing studies about burnout regarding its causes and consequences, there might be helpful information in studying those teachers whose resiliency seems to help them avoid becoming burnt out. All these teachers were found to be creative as

well as resilient. Schaufeli et al. (1996) found in his research that individuals experiencing the symptoms of burnout did not have resiliency.

Schaufeli et al. (1996) studied a connection between burnout and creativity and innovation. Burnout is defined as a three-dimensional syndrome, which consists of emotional exhaustion, depersonalization, and reduced personal achievement as a result of prolonged exposure to interpersonal stressors (Maslach, 2001). Creativity is defined as making something new, the act of doing (Maitland, 1976), and as a creation that is fundamentally, or significantly, different from the old form (von Franz, 1972). Goff and Torrance (2002) use fluency, originality, elaboration, and flexibility as the components of creativity. Innovation is defined by Schaufeli et al. (1996) as the “discovery of a new, novel, or unusual idea or product by the application of logic, experience, or artistry” (p. 164). The MBI, the Test of Divergent Thinking, Strazlecki’s Style of Creative Behavior Questionnaire, the Consequences Anticipation Test, and the Kriton Adaptation-Innovation Inventory (KAII) were administered to business managers by Schaufeli, et al. (1996) in the effort to find if there was a correlation between burnout, creativity, and innovation. These researchers found that burnout is a form of resignation, and resignation paralyzes creativity. There was also evidence from their studies that people who were experiencing burnout were less creative. Burnout negatively affects creativity by blocking the individual’s ability to connect to that creative energy.

## Creativity

Definition of Creativity. The Online Etymology Dictionary (2008) defines creativity as “the quality to create.” The word create, circa 1386, comes from the Latin word *creare*, which means “to make, produce.” Creator was first used circa 1300 to mean “the Supreme Being.” The word creative was originally used in relation to the arts around 1816 and meant “imagination.”

Just as the definition has evolved over time, Schwager (2001) looked at the many different ways that writers over time have interpreted the meaning of creativity, and this author concluded that creativity has many different meanings at the present time. Because of the intangibility of creativity, the term provides a great range for explication (Schwager).

Creativity is one of the most meaningful, yet least understood, aspects of human life (Maitland, 1976). Maitland described creativity as making something new, the act of doing. Creativity, according to von Franz (1972), is when the new creation is something fundamentally, or significantly, different from the old form. Schmidt (2006), referring to the theory of development by Eric Erikson, stated that creativity begins in childhood and has a continuum through adulthood. It is a vital lifelong process that is necessary for personal growth and reevaluation. According to Ornstein (2006), the term artist creativity does not apply to the gifted, but to anyone who gives expression to his or her internalized feelings and ideas. Creative acts, along with drawing, painting, and playing a musical instrument, can take the form of growing an herb garden, trying out and creating new recipes, a mother finding age appropriate answers to a child's question, or decorating a room. Ornstein referenced post-Holocaust artist Samuel Bak, who maintained that creativity is an attempt to "reconstruct what has been lost" and to "recreate something" (p.388) even without awareness of what has been lost or what the something is that was recreated.

According to Maitland (1976), a sense of freedom comes from going outside the bounds of the ordinary, outside the box, and outside the way it has always been done because when doing so, one feels like a free and original person. As one stays with this process, a new level of awareness of one's self and the world develops. This consciousness/awareness reflects human freedom fully appreciated and attained. Schmidt (2006) emphasized that those who regularly

engage in creative activities show greater personal development, have heightened responses to their surroundings, think in original ways, take risks, are goal oriented, have exemplary work ethics, and persevere until their work is completed. This drive for creativity is a basic motivating force that is connected to the need to sustain or regain spontaneity and freedom. Schwager (2001) made the point that creativity thrives in optimal freedom, without direction and purpose. There is no freedom in creativity when there is a goal, even if that goal is creativity. Consequently freedom will disappear and creativity will become an act of servitude. For example, to write so one can become an author, rather than to write for the joy of it, removes the freedom for creativity to flourish. Schwager emphasized that creativity needs to exist for creativity's sake and not for a directed, focused purpose. To better understand how to foster a freedom so creativity can develop, one can observe the freedom with which children play.

Von Franz (1993) asserted that play was an action without purposiveness, which is also true of creativity. Purposiveness will poison creativity. Von Franz (1972) emphasized that creativity through play is an accepted and indispensable factor. She referenced Friedrich von Schiller, who stated that a person was at his or her highest level when at play, for he or she has no conscious purpose. Von Schiller (as cited in Von Franz, 1972) once said, "Dare to err and to dream. Deep meaning often lies in childish play" (p. 37). Russ (2003) found that creativity and play are linked empirically and theoretically because divergent thinking is needed in both. Play also develops cognitive and affective processes, both of which are essential in play and creativity. Russ's findings showed that children in their play start early in life working at finding creative meanings and goals for their lives. Play is a way for children to express their deep and repressed feelings and thoughts (Kalf, 1980) with images that they cannot express with words.

The act of playing allows the imagination to work freely and unhampered. This unhampered flow of energy carries a healing element.

### The Source of Creativity

The creative process (Costelloe, 2007; Maitland, 1976) appears as ideas, thoughts, images, colors, shapes, words, visions, fantasies, emotions, or impressions in a person's consciousness. As a person begins this creative process, he or she does not consciously know where his or her work is heading. To better understand the creative process, McDermott (1984) examined the creative life of Robert Edmond Jones who was an early professional designer of sets for Broadway productions in the early 1900s. At one point in his career, Jones left the theater where he had been working. He subsequently went to Zurich for a year and worked with Dr. Carl Jung. When Jones returned, he began to design sets for the theatre once again. However, this time his work was better than ever and changed the way sets and costumes were used as an integral part of the production (McDermott). His work has influenced and radically Broadway productions and his methods are still being followed today. Jones began lecturing and wrote a book, The Dramatic Imagination, which is about the role of the unconscious in the creative process. McDermott saw creativity as an autonomous complex that arises out of the individual's psyche from his or her unconscious. It carries a drive to grow and develop and needs to be expressed. Her study of Jones confirmed that his work grew and developed along with the corresponding development of his personality.

Schwager (2001) describes creativity as the fundamental force in the evolution of consciousness. It is a force that is present from birth, a motivating energy associated with the need to sustain and recover spontaneity and freedom, which Schwager saw as necessary for development as well as healing. Creative energy is expressed through symbols and images from

the unconscious. Jung (1966a) discussed how the imagination resides in the unconscious, which is infinite and can produce continuous streams of new ideas and solutions. Jung developed a technique for approaching the unconscious in order to connect to this creative energy that eventually came to be called active imagination. A few examples of active imagination would be writing, painting, drawing, dancing, play, and athletics. These expressions of the unconscious are part of the creative process. Jung (1966c) pointed out that since every individual has a different psychic makeup, the creative energies that each person has are individualistic and vary in degree and quality. This creative energy is autonomous and spontaneous; it cannot be forced to appear and perform. It is important that these energies be recognized and accepted, i.e., becomes an integral part of one's daily life. These creative energies become more accessible as one works with them. Schwager stressed the importance of creativity since it is this creative process that gives expression to that which cannot easily or clearly be expressed; instead symbols and images are used to give expression. This creative energy has a strength and power that differs with each individual. The expression of that creativity is dependent on inherent talents and interests each person has, as well as and the support of others who can sanction and provide the freedom necessary for it to unfold. Schwager along with others (Jung, 1966a; Kalff, 1980; McDermott, 1984; Russ, 2003;) found that the expression of the imagination and the participation in the creative process not only benefits one in his or her personal development but is also healing.

Most instruments for assessing creativity have been created for use with children, mainly for the identification of gifted children (Goff & Torrance, 2002). The Torrance Test of Creative Thinking (TTCT), which was used mainly for assessing gifted students, was later modified to form the Demonstration Form of the Torrance Tests, (D-TTCT). The D-TTCT was found to be less time consuming as well as being effective with adults. This led Goff and Torrance to

develop the Abbreviated Torrance Test for Adults (ATTA), which is widely used today. Besides looking for divergent thinking, there are tests that are used especially in career counseling and business management (Schaufeli, et al.,1996). Most notably are the Consequences Anticipation Test (CAT) and the Strzalecki's Style of Behavior Questionnaire. The CAT tests for fluency in thinking and is scored by trained psychologists while the Strzalecki's Style of Behavior tests for cognitive abilities, personality traits, and axiological domain.

### Healing Aspects of Creativity

Schwager (2001) described the healing aspects of creativity as the recovering and sustaining of freedom and spontaneity in an individual. Creativity is the principal force in the development of consciousness (Schwager). When a person develops a higher state of consciousness, his or her need for survival becomes less demanding. As the unconscious/creative energy focuses less on survival, his or her energies turn toward a need to be understood and known, particularly by one's own self. This coming to know and understand one's self is the motivating force of this creative energy, energy that constantly raises the moral and centralizing level of consciousness by pursuing an understanding of meaning and meaninglessness. The individual finds himself or herself needing to express the experiences of his or her life creatively (i.e., symbolically and metaphorically). Wickes (1963) described how a person attempts to express his or her experiences by looking for images or expressions that give a spiritual dimension to an event. It may be an interpersonal conflict where one puts aside a critique of the other's motives and responsibility; instead one would look for the meaning of this experience or what lesson he or she needs to learn from this experience. With self-reflection one might ask: Why is this happening to me at this time? What do I need to learn from this? The images and

metaphor, Wickes stated, give the individual an understanding of the meaning of his or her experience.

Creativity is the “transcendent in process” (Schwager, 2001, p. 601). Jung (1966b) described the transcendent function as an instinctual drive of the objective psyche, the unconscious, that pushes one to individuate (to become whole) by reconciling their inner conflicting energies, which is a naturally occurring process that activates the creative energies. Schwager reviewed the works of many researchers and writers on the topic of creativity and its connection to the transcendent process. These writers and researchers included Eric Erikson, D.W. Winnicott, John Dewey, L.S. Kubie, and M. Milner, all of whom saw creativity as a transcendent process that impacts the development of the individual and gives meaning and cohesiveness to his or her life.

When a crisis or tragedy intrudes upon a person’s life, Schwager (2001) explained that a creative person will transcend these events and gain an understanding of the meaningfulness and meaninglessness of what has occurred. This is living creatively. Each individual has his or her own personal way of doing this that is unique to him or her. It means that the person must look beyond the conventional and accepted answers. Courage and resilience are needed to look within himself or herself to find the answers and to confront one’s own dark aspects such as greed, jealousy, or pride that every individual possesses but may not recognize as his or her own. Schwager said that this attitude and effort gives the individual wisdom, which comes out of the development and awareness of the transcendent, that is, the creative process.

Creativity is often thought of as doing something for fun, for relaxation, or for no particular reason at all. Consequently, it may be an astonishing idea to realize that it has a healing quality to it both emotionally and physiologically. Jackson (1990) looked at the historical

aspects of healing by use of the imagination. Even at the times of Empedocles and Plato and Aristotle, imagination was seen as an important aspect of one's personality. However, beginning in the 1500s the imagination was accepted medically and psychologically as an important part of the healing process. Entering the 20<sup>th</sup> century, the creative process was seen as an active approach to the imagination, specifically for healing. McDermott (1984) claimed that unexpressed creative energy can cause distress and even illnesses, whereas expressed creative energy can bring healing.

Schmidt (2006) discussed investigations into chronic pain in elderly patients who regularly engaged in creative activities. Upon studying the lives of several older people who suffered from ongoing pain and who were continually engaged in artistic activities, Schmidt noticed a pattern. Some of the individuals studied were Henri Matisse, who at 72 was diagnosed with cancer, Claude Monet with progressive cataracts, Chuck Close after he became a quadriplegic, Renoir with disabling rheumatoid arthritis, and Georgia O'Keeffe with macular degeneration at 81. Each artist had a more positive attitude and was able to better adapt to hardship and to cope with physical pain than those who did not regularly engage in creative activities. The "maturing of creativity" (Schmidt, p. 28), which is reflected by increased confidence and improved divergent thinking, has physiological and psychological benefits.

Singer (2002) told of a study at the University of Oregon where electroencephalograms (EEGs) were used to detect neuron activity in the frontal lobe during creative thinking. Singer also told of a study at Tufts University used an EEG to detect frontal lobe activity when creative activities occurred. Another brain imaging experiment conducted at the Medical Research Council in Cambridge, England, found that the lateral frontal cortex remains quiet during routine thought and is activated when involved in complex thought, such as a creative solution to a problem.

Schmidt described how MRI studies showed that the brain is most active during creative moments. Blood flow to the brain increases during this time, which increases neurological wiring. These neurological changes resulting from engaging in creative activities can happen at any time during one's life span.

Meaningful creative activities stimulate the cerebral lateral frontal cortex of one or both hemispheres (Schmidt 2006), which reduces psychological as well as physical pain. Emotions associated with pain and pleasure share similar neural circuitry in the limbic system. A heightened state of creativity activates these neural pathways, which sends a cascade of painkilling chemicals. Stress reduces the body's ability to naturally produce the neural circuitry necessary to properly function. Creativity allows the body to reconnect to this important neural circuitry.

Creativity and its healing power are most powerfully told in the story of William de Kooning's recovery from Alzheimer's disease (Espinel, 1996). After being diagnosed with Alzheimer's, de Kooning followed his doctor's recommendations for treatment and had the support of family and friends to implement a healthier lifestyle. An additional therapy that de Kooning added was to completely change his painting technique, and he began painting abstracts with his non-dominant hand. He painted straight from the unconscious with uninhibited gestures, his right hand roaming over the canvas. These paintings were even more successful than his previous works. Espinel stated that de Kooning's works were not that of a declining mind, but rather that of an active and powerful mind. His efforts to combat the effects of Alzheimer's were to take care of his physical needs, have the support of family and friends, continue his art work, and follow the recommended treatments for Alzheimer's patients. The multiplicity and intensity of his art work was the only difference from the recommended care and treatment of Alzheimer's

patients. Espinel, a medical doctor at Georgetown University who studied great artists and their physical ailments, stated that de Kooning's creative attitude and work was a significant contribution to his recovery. Within 5 years, the artist had painted 254 paintings. After 1 or 2 years of working on his new art style, engaging in the creative process, he was painting more and his technique continued to improve. Mentally his mind was sharper than it had been when he was diagnosed, and the symptoms of Alzheimer's had ceased to exist.

Another example of creativity's healing powers is from Ornstein's (2006) study of the survivors of concentration camps during World War II. Ornstein studied and reviewed the creative works about the Holocaust by survivors and non-survivors (those who never experienced the concentration camps). Then, through biographies, reflections of relatives, and writings of survivors, she compared the coping of survivors who engaged in creative activities while they were in the camps with those who did not. She found that those who engaged in creative works while in the camps were better able to deal with the atrocities they endured. Those survivors who had maintained their creative activities were better able to pick up with their lives and go on than those who had engaged in no creative activities during their imprisonment. When survivors wrote or painted about their experiences, they used images and metaphors that told of the emotional experience they endured. The non-survivors' art work was centered on the facts that held a historical significance without conveying the emotional impact of that historical moment. Ornstein believed that the creative acts during the Holocaust made emotional survival and eventual recovery with a relatively intact mind more likely. Ornstein's research further showed that creativity wards off or repairs emotional fragmentation and/or depletion caused by traumatic events. The author related that survivors' ability to accurately express their emotional states through the creative process creates an understanding and sense of

meaningfulness of their experiences. In addition, it gives survivors an inner space where they can preserve their inner integrity. This, in turn, gives them a greater ability to protect themselves from potentially harmful external events.

Schwager (2001) considered creativity to be hard work because a person needs to constantly look within himself or herself to find new understandings that increase the meaning and value of his or her life, while decreasing alienation from the self and others. Kalff (1980) and von Franz (1993) similarly stated that play, the basis of creativity, is hard work. One merely has to watch children at play to see the amount of energy and effort they put into their play activities. Schwager stated that connecting to this creative capacity can lead one to more developed insights and intuitions, perceptions, and inner authority. Furthermore, she stated that if the creative drive is not recognized and given room to be expressed, this drive can weaken or lead to negative effects. To disbelieve in or disparage this drive can diminish one's ability to connect to its energies. When this creative capacity is not connected to the individual, it can lead to a state of anxiety or meaninglessness and serious disassociation from the inner life force. Consequently, Schwager said, one is left to be dependent on external energies that give him or her definition. Life can become flat, anemic, paper thin; one feels estranged from oneself and self-conscious. Creative and symbolic expression answers a need to make sense out of experiences and to connect incongruent events of reality.

Briggs (2009) reported on medical research that shows that listening to music causes changes in the body that stimulates healing. This research showed that the sound waves from a string instrument create activity in the cerebral cortex, which sends electrical cues to the hypothalamus, which controls the heart rate and respiration, and to nerves in the stomach and shins. These signals continue their conversion into hormones. These studies showed that

critically ill patients, listening to one hour of Mozart, required fewer sedative drugs. Briggs stated that doctors preferred to use classical music but that it was more important that patients listen to music they like which elicits a joyful reaction. Their reaction actually maximizes endorphin release and dilates blood vessels, increasing blood flow. Briggs reported on another research that showed that the heartbeat of a listener will actually adapt to the beat of the music. Briggs stated that this research is in its infancy but has to date produced very encouraging results prompting more interest in this area.

### Teachers and Creativity

Farber (2000) stated that 30 to 35% of teachers are strongly dissatisfied with their profession and that 5 to 20% of those teachers are suffering from burnout. Some of the causes for their frustration and dissatisfaction come from being burdened with increasing paperwork, large classes, undisciplined and unmotivated students, lack of support, increasing workload, and feeling undervalued (Farber; Kokkinos, 2007). Many of these teachers felt that school reform, such as No Student Left Behind, increased the pressure to succeed, which was defined as 100% of their students scoring at average or above average (Hirsh-Pasek & Golinkoff, 2007). These expectations of the teachers' performances were in spite of increasing student diversity and fewer resources. "BusinessWeek" ("U.S. Schools," 2001) stated that rules, regulations, and the structures that teachers are required to teach from stifle teachers and result in 50% dropping out of teaching after the first year. This stifling restricts the creativity of these teachers. Stager (2003) stated that the standardization in curriculum and in teaching techniques is a deterrent to creativity in the classroom. Parsley (2004) stated that teachers were retiring early and experiencing burnout due to the expectations that No Child Left Behind generates.

In a personal interview with a teacher (M. N. Dicharry, personal communication, September 27, 2007), Dicharry said that one of the frustrations that many teachers express is that they are not allowed to be creative. Many factors work against them. Rules and regulations, disruptive students, a critical public, uncooperative parents, and non-supportive administration are a few. Teachers feel compelled to “teach the test,” which leaves little room for creativity. She also stated that the teachers believed that the lack of ability to be creative was one of the reasons that they experienced more burnout, that taking away creativity from a creative profession could make it more difficult for teachers to maintain physical and emotional health.

Polk (2006) mentioned that one of the traits of effective teachers is creativity, as teaching is a creative profession (Peat, 1989). It expects teachers to not only be creative in teaching strategies but also in teaching their students to be creative. Peat stated, however, that creativity is not a skill that can learn but instead is a characteristic that each person has. It is unreserved and is its own reward. Creativity uses the skills, information, and techniques that people can be taught. Peat said that when attempts are made to foster, improve, or teach creativity, rules and regulations are established, which, along with expectations and goals, do not allow for creativity to be expressed. Parsley (2004) stated that the environment and expectations for teachers are becoming more restrictive. Peat explained that these types of external restrictions can restrict creativity and limit the mind. In education, Peat stated, teachers need to develop their own creativity, modeling for their students so their students can develop their creativity. For teachers to be able to express, model, and experience their creativity, there must be freedom to play and make mistakes.

## Creativity and Burnout

A review of related research found examples of creativity having a positive effect on particular individuals and situations. Schmidt (2006) found that creativity reduced the pain and reversed damage to the brain. Espinel (1996) gave the description of deKooning's reversal of dementia through painting along with his medical treatment. Ornstein (2006) told how creativity helped the survivors of the Holocaust during captivity and adjustment to society after release by being able to endure the stress of their imprisonment. Briggs (2009) spoke of research that is showing that music used on surgical patients created measureable physical changes in the body. Farber (2000) reviewed literature regarding interventions for stress-related symptoms of burnout. He concluded that since there are so many variables in burnout and that since teachers present with such a variety of symptoms, each person needed to be assessed individually, including using creativity in the form of art or music therapy. In the present study, a search of the literature did not produce research stating that creativity has any impact on burnout in teachers, either in the preventative stage or the healing stage.

The hypothesis of this study is that creativity and burnout have a negative relationship with each other, such that participants reporting high levels of creativity will exhibit low levels of burnout, and participants reporting low levels of creativity will exhibit high levels of burnout. Some of the questions that come up after reviewing the literature on the variables of burnout and creativity are: Can the relationship between creativity and pain complaints that Schmidt (2006) discussed, where pain was reduced in participants, be similar to the relationship between creativity and the physiological complaints of burnout patients, particularly those suffering from muscular problems? Can the relationship between creativity and emotional stress as mentioned by Ornstein (2006), where some Holocaust survivors were under great stress, be similar to that of

teachers suffering from psychological complaints during and after stress that can lead to burnout? Can the relationship between creativity and physical healing as reported by Briggs (2009) also have a similar relationship for teachers to relieve stress and change the functioning of the neurons and hormones so healing can be effected?

These questions serve as the motivation to look for a correlation between burnout and creativity in public school classroom teachers. If there is a relationship between these two variables, it could benefit the classroom teachers, administrators, mental health providers, and the teachers' students. If burnout is associated with a reduction of the creativity of teachers, which is an important aspect of their profession, the effectiveness of teachers is impacted. If creativity is associated with a reduction in burnout that teachers experience, the efficacy of teachers is impacted. These questions and supposition support a need to look for a correlation between creativity and burnout in public school teachers. Therefore, the purpose of this study is to determine if there is a correlation between creativity and burnout among public school classroom teachers.

## METHODS

### Participants

Two out of the 18 schools in St. Martin Parish, Louisiana, were approached and asked if there would be any interest in participating in a survey. Of the 67 teachers at the two public schools, 49 at St. Martinville Senior High School (SMSHS; grades 9 through 12) and 18 at Early Learning Center (ELC; grades pre-kindergarten through grade 1), 19 participated in the study, 12 from ELC and 7 from SMSHS. The two participating schools, with which the researcher is professionally familiar, are approximately 2 miles apart and serve children residing in the same surrounding area. However, they differ in size and organizational perspective; that is, ELC is a smaller school with more focus on identifying early learning problems and SMSHS has a greater focus on discipline and career goals.

The sample was primarily female (84.2%) and Caucasian (73.7%), with an average age of 42.4 years ( $SD = 11.70$ ) and with 17 years of teaching experience ( $SD = 11.87$ ). The study employed a purposive, non-probability sampling technique (Rubin & Babbie, 2007). Federal human subjects guidelines and those of the Louisiana State University (LSU) were followed for the safety and protection of the participants, and the study was approved by LSU's Institutional Review Board (IRB).

### Procedures

Following IRB approval, the investigator contacted principals of 2 schools in St. Martin Parish and explained to them the importance and nature of the survey, along with a request for the investigator to administer the surveys during a non-instructional period. Two principals expressed interest and granted permission and a time was scheduled for administering the surveys. Before the student investigator could distribute a letter to the principals discussing the

purpose of the surveys as well as the anonymous and voluntary nature of the study, the principals emailed their staff inviting them to participate in a study on teacher burnout and creativity. The letter that was eventually to be delivered was later delivered to the principals and distributed to those teachers interested in participating. The response rate was 28% for all those contacted. The response rate from SMSHS was 14% and from ELC it was 66%. Signed consent forms were collected before the surveys were administered and the student investigator collected the surveys upon completion.

The response rate was determined by dividing the number of surveys distributed (19) by the number of participants contacted (67). According to Rubin and Babbie (2007), a response rate of 50% is considered adequate, while a rate of 60% is good and 70% is very good. The completion rate was 100%.

#### Variables

For the purpose of this study, burnout was the dependent variable, and creativity was the independent variable. Both variables were treated as quantitative interval-level variables. Demographic data such as gender and race, both nominal-level variables, and age and years of teaching experience, both ratio-level variables, were also gathered.

#### Instrumentation

Two instruments were used in this study, The Abbreviated Torrance Test for Adults (ATTA; Goff & Torrance, 2002) and the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach, Jackson, & Schwab, 1986). The ATTA is used to assess creative abilities and was adapted from the Torrance Test of Creative Thinking (TTCT). The ATTA captures four abilities (e.g., fluency, originality, elaboration, and flexibility) and 15 creativity indicators (divided into verbal and figural responses) and consists of three 3-minute activities. One activity is verbal,

asking for as many responses as possible within 3 minutes. The other two activities require a figure or figures to be drawn within 3 minutes. The four abilities are scored with a 9-point scaled score with values ranging from 11 to 19 and with a center at 15. Each of the creativity indicators are scaled a 0, 1, or 2. The reliability of the raw scores ranged from .84 to .90, with a reliability coefficient of .90 (Goff & Torrance, 2002). A reliability coefficient of .90 and above is considered excellent, with .80 to .89 considered good, and some lower scores are acceptable for shorter instruments (Rubin & Babbie, 2007). The inter-rater reliability was .95 to .99 (Goff & Torrance): scores above .70 are considered acceptable (Rubin & Babbie). The standard error of measurement for the four individual components, fluency, originality, elaboration and flexibility, ranged from .78 to 1.68, which Goff and Torrance (2002) felt was significant since the components are considered individually. Goff and Torrance conducted seven longitudinal validity studies over a 40-year span. The validity coefficient of the ATTA is considered high (Cropley, 2001).

To test the degree of burnout that teachers experience, the MBI-ES was used. It contains 22 items that measure the frequency and intensity of burnout. There are three components to the inventory: emotional exhaustion (9 items), depersonalization (5 items), and reduced personal accomplishment (8 items). The items are presented in statement form with response options ranging from 0, “never,” to 6, “everyday”. Higher scores on emotional exhaustion and depersonalization and lower scores on personal accomplishment indicate a greater degree of burnout. Emotional exhaustion scores range from 0-54 possible points, with 0-16 as low, 17-26 as moderate, and 27 or over as high. Depersonalization has a total possible 30 points, with 0-6 as low, 7-12 as moderate, and 13 or over as high. Personal accomplishment has 48 possible points with 0-31 as high, 32-38 as moderate, and 39 or over as low. Examples of the items are, “I feel

emotionally drained from my work” (emotional exhaustion), “I feel I treat students as if they were impersonal objects” (depersonalization), and “I can easily create a relaxed atmosphere with my student” (personal accomplishment). The MBI-ES takes 10-15 minutes to complete. The reliability coefficient ranges from  $\alpha = .76$  to  $.90$  (mean  $\alpha = .78$ ; Schaufeli et al., 1996). Rubin and Babbie (2007) stated that alphas around  $.90$  and above are excellent and  $.80$  are good; however, lower scores are acceptable when the instrument has fewer items. Test-retest reliability ranged from  $.60$  to  $.82$  (mean  $r = .74$ ; Schaufeli, 1996), and Rubin and Babbie (2007) considered any score above  $.70$  or  $.80$  to be acceptable.

### Research Design

This exploratory/descriptive study will utilize a non-experimental, cross-sectional design (Rubin & Babbie, 2007).

### Data Analysis

Data were entered into a database of a standard statistical program. Demographic data including gender and ethnicity were reported using descriptive statistics such as frequencies and percentages. Age and years of teaching will be reported with measures of central tendency and dispersion. The strength of association between burnout and creativity will be measured using Pearson’s correlation for continuous variables (e.g., age, years of experience, emotional exhaustion, depersonalization, personal achievement, and creativity) with  $p < .05$  being considered statistically significant.

Reliability analyses for this study yielded  $\alpha = .68$  for the ATTA and  $\alpha = .70$  for the MBI-ES.

## RESULTS

The univariate analysis looked at the range of values as well as the central tendencies.

With regards to the demographics as shown in Table 1, the racial data showed that 73.7% ( $N = 14$ ) were Caucasian, with 15.8% ( $N = 3$ ) African-American and for Asian and Native American each had 5.3% ( $N = 1$ ). The participants were 84.2% ( $N = 16$ ) females and 15.8% ( $N = 3$ ) males. The ages were in a range of 28 to 61 with the mean as 43.4. Years of experience ranged from 3 years to 38 years with a mean of 17.

Table 1

### Demographics

Variables	<i>n</i> (%)	Range	<i>M</i> ( <i>SD</i> )
<b>Race</b>			
African-American	3 (15.8)		
Asian	1 (5.3)		
Caucasian	14 (73.7)		
Native American	1 (5.3)		
<b>Gender</b>			
Female	16 (84.2)		
Male	3 (15.8)		
Age		28 – 61	42.4 (11.70)
Years of experience		3 – 38	17.0 (11.87)

All variables were analyzed for potential bivariate relationships. The results showed that out of 28 variable pairings, only 2 significant correlations exist: years of experience and age ( $r = .87, p < .01$ ) and years of experience and depersonalization ( $r = -.49, p < .05$ ; see Table 2). There were no significant correlations between creativity and any of the dimensions of burnout. The correlation between creativity and personal accomplishment had the highest correlation, that of .432, with a correlation between creativity and emotional exhaustion at .073, and between creativity and depersonalization at .072.

Table 2

Variable correlations

Measure	1	2	3	4	5	6
1 Emotional exhaustion						
2 Depersonalization	.419					
3 Personal accomplishment	-.196	-.052				
4 Creativity index	.073	.072	.432			
5 Years of experience	-.409	-.496*	.335	.432		
6 Age	-.230	-.340	.442	.307	.873**	

\* $p < .05$ , \*\*  $p < .01$

Variable means for creativity and burnout appear in Table 3. These reflected that the range for emotional exhaustion was 6–37 with a mean of 19.37, which is considered as a moderate burnout level. Depersonalization ranged from 1–14 with a mean of 5.32, which is considered a low level of burnout. Personal accomplishment ranged from 32–47 and had a mean of 40.16, which reflects a low level of burnout. Personal accomplishment is a reverse score, that is, the higher the score, the lower the degree of burnout being experienced. These results showed that the group as a whole had a low degree of burnout from depersonalization and personal accomplishment, whereas there was a moderate level of burnout from emotional exhaustion. The Creativity index ranged from 22-92 with a mean of 63.89, which is considered below average from a range of minimal (1-50), low (51-59), below average (60-70), average (68-73), above average (74-77) high (78-84), and substantial (85+).

Table 3

Variable Means

Measure	Range	<i>M (SD)</i>
Emotional exhaustion	6 – 37	19.37 (8.76)
Depersonalization	1 – 14	5.32 (3.97)
Personal accomplishment	32 – 47	40.16 (3.73)
Creativity index	22 – 92	63.89 (18.44)

## DISCUSSION

The surveys administered in this study looked for a correlation between creativity and burnout among public school classroom teachers. There were no significant correlations between the variables in this study, which are emotional exhaustion, depersonalization, personal accomplishment, and creativity index. Emotional exhaustion had a correlation with the creativity index of .073, depersonalization and creativity index had a correlation of .072. Both are negligible relationships. A greater correlation was between creativity and personal accomplishment which was .432, but not significant enough to be of value.

Although not the focus of this study, there were two significant correlations, one of which is interesting. Those significant correlations were between age and years of experience and between years of experience and depersonalization. A significant correlation between age and years of experience is to be expected; the longer one works, the older one gets. There is no literature that speaks to a correlation between age and years of experience as it relates to either burnout or creativity. This study also shows that there is a significant correlation between years of experience and depersonalization, the longer a teacher teaches, the less depersonalization he or she might experience. Maslach et al. (2001) defined depersonalization as an emotional distancing from others and viewing service recipients as objects related to one's job. The correlation in this study between years of experience and depersonalization is supported by other studies that found a correlation between years of experience and burnout. Schwab (1986) found that younger teachers tend to burn out faster (depersonalization is one aspect of burnout). Bryne (1998) stated that 50% of beginning teachers leave the teaching profession within their first 4 years. Burnout symptoms, Bryne found, tended to occur during the second, seventh, and tenth years of teaching.

A study by Schaufeli et al. (1996), looking at a connection between burnout, innovation and creativity, was similar to the study by this student investigator. That study found empirical evidence of a connection between burnout and creativity. They also found that “People who are experiencing burnout are characterized by less creativity” (p. 173). Schaufeli et al. established a link between “burnout and creative style” (p. 174). The major difference in their study as compared to this student investigator’s study was that they had a larger sample size as well as used more tests for creativity. Their research used the MBI along with one of the Torrance tests of creativity, the Torrance Test of Divergent Thinking. In addition, they used the Consequences Anticipation Test and Strzalecki’s Style of Creative Behavior. Schaufeli et al. also had an additional variable of innovation. The results of the study by Schaufeli et al. could have been more comprehensive because of their use of various scales and adding the variable of innovation in addition to their larger sample size ( $N = 80$ ).

The findings must be considered in light of several limitations. Time constraints resulted in a small sample size ( $N = 19$ ), and the sample was drawn from only two schools. The sample was composed of mostly females ( $N = 16$ , 84.2%) and Caucasians ( $N = 14$ , 73.7%). The variables of age ( $M = 42.44$ ) and years of experience ( $M = 17$ ) were more diverse. There were 8 participants with over 15 years of experience and 11 with less than 15 years of experience. Regarding age, 9 participants were over 40, while 10 were under 40. Other limitations were the self-report nature of the surveys and that one of the surveys, the ATTA, was administered. Although the administrator was given detailed and specific instructions and a script for the administration of the ATTA, there is always the risk of bias due to the rater’s personality and enthusiasm. In addition the surveys were administered and scored by the same student investigator.

Further research in this area might prove beneficial. A larger sample size could provide more definitive results. A longitudinal study that would start with beginning teachers and test them at the end of every 2 or 3 years for creativity and burnout could be productive. The longitudinal study could also provide an opportunity to collect data on any teacher attrition that might occur during the study, which may identify variables other than burnout that might have an impact on teacher attrition. Other variables of interest to add to future studies could be job satisfaction and self-efficacy. Another approach that may be helpful would be to administer a burnout survey to teachers who actively engage in creative activities, e.g., hobbies such as gardening, woodworking or cooking. This type of study might provide needed insight into the correlation between creativity and burnout and perhaps other teacher qualities in public school classroom teachers. There is a need for more empirical and comprehensive research with regards to creativity. Much of the research in this area is literature reviews or antidotal findings. Maslach et al. (2001) outlined the research history with regard to burnout and these authors report that research is recently turning to interventions because previous research had been focused on getting objective and substantial data on the nature and causes of burnout. Most research on interventions had focused on improving the work environment and interventions related to reduction of stress. Maslach et al. suggested that research needs to now be turned to interventions that can focus on the physical and mental health of workers susceptible to burnout and addressing the particular factor of burnout the individual is experiencing, such as emotional exhaustion, depersonalization, and/or reduced personal accomplishment.

Although this study did not support the hypothesis that there is a correlation between creativity and burnout in public school classroom teachers, it did reveal an interesting negative correlation of significance between years of experience and depersonalization. This correlation

seems to imply that the more years of experience a teacher has, the more connected they are. School social workers could work with teachers educating them about burnout and the risks that teachers might encounter, particularly early in their careers. An investigation into how to prevent depersonalization in early teachers might offer helpful information. However, in the matter of creativity, there were no results that showed that creativity does impact burnout whether in the form of emotional exhaustion, depersonalization, or reduced personal accomplishment.

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