A PATH ANALYSIS STUDY OF THE INFLUENCE OF TEACHING PERSPECTIVES AND PERCEPTIONS OF JOB BURNOUT ON INSTRUCTOR TURNOVER INTENTIONS AT OKLAHOMA STATE UNIVERSITY

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CHAPTER I

Introduction

The consequences of work-related stress are no longer taken for granted by organizations that care about their workers. Wright stated, "for every one-point increase – on a seven-point scale in an employee's reported psychological well-being, the probability that an employee will stay with their current organization doubled" (as cited in Novotney, 2011, para. 7). The failure of employees to stay with a given work organization for a sufficient aomount of time undermines the employer's returns on investment in human resources (Xu, 2009). According to researchers, this job turnover phenomenon also has been a concern for institutions of higher learning (Bakker, Demerouti, De Boer, & Schaufeli, 2003; Kinman, 2001; Kiziltepe, 2008; Winefield et al., 2003). The researchers also suggested the link between job stress and university instructors' turnover intentions. A chronic form of job stress, *job burnout,* may be associated with high turnover intentions among employees in some workplaces (Schaufeli, Leiter, & Maslach, 2009).

Persistent difficult economic circumstances, such as what has been experienced in the United States beginning in 2007, could cause unusual job stress among instructors, many of

whom set high work-related expectations for themselves (Hurtado, Eagan, Pryor, Whang, & Tran, 2012). As job stress persists and intensifies in their workplace contexts, instructors' views – teaching beliefs, intentions, and actions for themselves as professional practitioners (i.e., *teaching perspectives;* Pratt & Associates, 1998) – may shift. A research–based connection between perceived job stress/burnout, teaching perspectives, and job turnover intentions would not only be an extension of knowledge but may also stand to influence multiple stakeholder groups concerned with this phenomenon.

Some factors that point to stress among university instructors are macro in nature. The United States (U.S.) economy had fewer jobs in manufacturing and agriculture than it had 10 to 20 years earlier according to the National Institute of Occupational Safety and Health (NIOSH, 2012). It was the service sector where jobs increased. Teaching was, therefore, expected to experience higher entry and maintenance competition. Stress could be expected and service providers (instructors) were likely to experience job burnout owing to many clients (students). NIOSH (2012) also noted that beginning in the mid-1980s, several employers begun to restructure their organizations to cope with the challenges of globalization. This restructuring involved reducing operational costs through downsizing as well as mergers. NIOSH (2012) reported the United States lost about one-half million jobs annually creating significant job insecurity within its workforce. The job demands placed on service providers who were retained could be expected to lead to job burnout. Kinman (2010) observed about 15% of instructors who reported being job stressed had contemplated quitting their jobs within the past year. One of the consequences of job-related stress and job burnout occurs when individuals quit their jobs (Byrne, 1998).

Job restructuring also included changing the way people worked. NIOSH (2012) stated such changes tended to increase the prevalence of ill-health among job-insecure workers. For example, university instructors had little choice but to adapt to using learning management

systems to teach online courses even though teaching online was said to be comparatively more taxing than teaching face-to-face (Ko & Rossen, 2010). Other than restructuring, employers in the United States also resorted to using part-time labor to reduce operational costs through short-term hiring practices. Although this had the advantage of allowing the institution to hire the prospective instructor as a part-time employee, NIOSH (2012) associated this practice with increased risks of illness among said employees owing to two factors: a) contingent or part-time labor experienced higher job insecurity; and b) though they might be equally certified as their tenured peers, their status as part-time instructors did not entitle them to the same rights and privileges as their colleagues.

Instructors at land-grant universities cope with stressful workplace stressors such as student enrollment (Watts & Robertson, 2011), less job control, time pressures, research, demands for productivity, as well as administrative demands of their jobs (Kinman, 2001); and with teaching online (Ko & Rosen, 2010). According to NIOSH, 40% of U.S. workers surveyed reported above average stress levels (Keita, 2006). Increase in work stress among university instructors was found to result in their de-motivation (Kiziltepe, 2008), lower productivity, and poor job performance (Miller, Buckholdt, & Shaw, 2008). These were conditions associated with low quality service provision by instructors.

Stress may be understood in terms of the demands of the situation, the job, and the individual's perceived control or ability to manage the job while acknowledging the unpleasant but possible consequences of poor performance or even failure at their work tasks (Smith, Anderson, & Lovrich, 1995). Inadequacies in perceived control or ability were interpreted by Bakker, Demerouti, De Boer, and Schaufeli (2003) to be a deficit in psychological, material, and social resources. This view of stress was called the demands-control model and interventions based on this model sought to lower the amount of demands, to increase the control, or to take both actions to minimize job stress (Watts & Robertson, 2011).

Stress is experienced personally and because of individual differences; different people have varying stress thresholds based on the culture, biology, and contexts in which they live and work (Smith, Anderson, & Lovrich, 1995). Large studies done by the International Labor Organization (ILO) in Australia, the European Union, the United Kingdom, and the United States between 1996 and 2000 indicated that 26% and 31% of those surveyed experienced work-related stress often or were extremely stressed (Bakkar et al., 2003). An earlier study of university instructors in the United States found two-thirds of the sample experienced high stress at work 50% of the time with 15% of respondents having contemplated quitting their jobs (Blix, Cruise, Mitchell, & Blix, 1994). Workplace stress has been studied by numerous researchers because it affects many workers worldwide and its prevention could ease individual suffering and save organizational resources (Hoel & Cooper, 2001).

Few studies, however, have investigated the link between dominant teaching perspectives and university instructors' perceptions of job stress or job burnout. A teaching perspective refers to how instructors justify what they do as being worthwhile (Pratt & Associates, 1998). The concepts of efficient delivery of content (*transmission*), the socialization of the learner into new behavioral norms and ways of working (*apprenticeship*), and self-concept and self-efficacy for learning (*nurturing*) have important perspectives in teaching (Pratt & Associates, 1998). Other teaching perspectives are *development,* i.e., learners develop increasingly complex cognitive structures for comprehending content, and *social reform,* which is the concept that effective teaching sought to change society by challenging the status quo (Pratt & Associates, 1998). Each teaching perspective was anchored on specific beliefs and intentions, which informed the instructor's teaching behaviors or actions. However, do the behaviors that followed from these beliefs influence instructors' perceptions of job stress and burnout?

Statement of the Problem

The 2010-2011 national survey by the Higher Education Research Institute (HERI) found 85% of college instructors were stressed because of setting high self-expectations, 83% of them attributed it to working with unprepared students, 71% to workload, and 70% to insufficient financial rewards (Hurtado et al., 2012). These were the top four stressors of college faculty members (Hurtado et al., 2012). Job-stressed faculty members were reported to have poor relationships with students and were associated with student experiences that included poor learning outcomes and limited progress (Stanley, 2006). Job stress among instructors also led to low student achievement, low instructor self-efficacy, and ineffective classroom management (Stanley, 2006). Moreover, Kinman (2001) reported high job turnover intentions among instructors who acknowledged being affected by job stress.

Persistent job stress or *job burnout* is often associated with negative consequences. Instructors who experience job burnout, or chronic workplace stress, perceived work as "less important, less meaningful, unpleasant, and unfulfilling" (Maslach & Leiter, 1997, p. 23). They experienced "lack of enthusiasm, dedication; feelings of security and enjoyment fade away and are replaced by anger, anxiety, and depression" (Maslach & Leiter, 1997, p. 23). The workplace, home functioning, and standards of output all suffered because of the stress they experienced. As a consequence, job stressed individuals skipped work more, put in fewer hours, and had a higher probability of job turnover. Watts and Robertson (2011) pointed out the possibility that instructors who experienced job burnout were likely to resent and to distance themselves from students.

Teaching perspectives are interpretations of self-as-instructor and responses to teaching based on instructors' prior experiences and missions. Teaching behavior could be seen as resulting from individually internalized mental dispositions which guided the instructors'

teaching practices (Swider & Zimmerman, 2010). Variations in teaching practices may be expected to vary with instructors' dominant teaching perspectives, as described by Pratt and Associates (1998).

An instructor's beliefs regarding the ability to effectively perform his or her responsibilities, i.e., occupational self-efficacy, and what instructors consider being critical or effective for the teaching and learning processes, may influence perceived job stress. Beliefs inform intentions which are translated into teaching behaviors (Pratt, 1992). Individuals with low career self-efficacy experienced increased stress if performing jobs with demands that they perceived exceeded their potential (Matsui & Onglatco, 1992). Further, such stress was most acute when the individual's career or occupational self-efficacy was low.

Therefore, instructors' beliefs regarding their teaching work and missions, i.e., their teaching perspectives, and the passion with which they engage in teaching may create lifestyles that catalyze or in some way influence their perceived workplace stress. Under conditions of high student enrollments and high pressure for research productivity, instructors' teaching perspectives and the practices they manifest were expected to differentially contribute to job burnout and job turnover intentions depending on individual instructors' personal and professional characteristics. This study, therefore, sought to explore associations between instructors' teaching perspectives, job burnout levels, and job turnover intentions as well as propose a path analysis for the purpose of explaining any associations that might be found.

Significance of the Study

Working environments are usually not transferrable even though individuals may transfer from one work setting to another. Kiziltepe (2008) reported about studies from eight countries which indicated the university instructors' level of job satisfaction depended on the environmental factors of their workplaces. Kiziltepe (2008) concluded that some job demands

were specific to a given workplace. Oklahoma State University (OSU) was a unique environment which provided the opportunity to consider the prevailing, as well as unique job contexts of instructors, which could shed light on their perceptions regarding teaching, including differences by colleges. Results of this study could help identify segments of faculty members who were at high risk of job stress and job burnout.

Study participants also had the opportunity to clarify their teaching perspectives and philosophies – acts expected to bolster their identities as professionals and improve their job morale (Kinman, 2010; Miller, Buckholdt, & Shaw, 2008). If left unchecked, perceived job stressors stand to undermine the health and productivity of university faculty by depleting their morale and energy. Miller et al. (2008) stated it was in the interest of both workers and their employers to prevent the long-term consequences of chronic occupational stress, including its internal and external effects on the individual. The job-related stress of university instructors, if not mitigated, is also likely to have negative effects on the educational attainment of students (Watts & Robertson, 2011).

Instructor job turnover has negative effects for higher education, including monetary losses, such as low productivity due to reduced number of instructors, and the loss of returns on institutional investments in faculty (Cohen, 1983). Institutions also spend money on new faculty recruitment as the result of instructor job turnover. In addition, communities served by the instructors through their teaching, research, and outreach incur losses in mentorship, trust, and the overall disruptions associated with instructor job turnover (Ducharme et al., 2008; Rosser, 2004). The researcher expected to understand better the phenomenon of instructor job turnover at OSU by exploring the direct and indirect antecedents of job turnover intention.

Purpose and Research Questions

The multifold purpose of this study was to explore and describe associations between the instructors' scores of perceived job burnout, measures of dominant teaching perspectives as per the *Teaching Perspectives Inventory* (TPI), and their job turnover intentions. Further, the study also sought to describe the influence of participants' personal and professional characteristics on the associations between perceptions of job burnout and job turnover intentions of faculty members with teaching appointments at OSU during the fall semester of 2013. Based on the literature reviewed, seven research questions guided the study:

1. What were selected personal and professional characteristics of the participants?

2. What were the participants' dominant teaching perspectives?

3. What levels of job burnout were reported by the participants?

4. What levels of job turnover intentions were reported by the participants?

5. Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?

6. Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?

7. Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?

Assumptions of the Study

The researcher made the following assumptions about the study:

1. The study's participants desired to be effective instructors.

2. The study's participants had the self-awareness to recognize their own beliefs and intentions, and could articulate them.

3. The study's participants answered the questionnaire items truthfully and to the best of their ability.

Scope and Delimitations of the Study

This study was limited to instructors of graduate and undergraduate students at Oklahoma State University, Stillwater campus. A census of instructors during the fall semester of 2013 was invited to participate. Teaching perspectives were limited to *transmission, development, nurturing, social reform,* and *apprenticeship,* as according to Pratt and Associates (1998). Hobfoll's (1989) theory of conservation of resources (COR) which emphasizes the role of *resources* in the job demands-resources model of job stress posited by Bakker and Demerouti (2008), was used to understand the participants' experiences of job burnout. Job burnout was restricted to the participants' perceptions of physical, emotional, and cognitive exhaustion, and the continuous depletion of energetic coping resources (Shirom & Melamed, 2006). To the exclusion of other stressors, the instructors' work with people, including students, administrators, and staff members, was taken as the main cause of job burnout in the study, which is the key difference between job stress and job burnout.

Definitions of Terms

Apprenticeship: A teaching perspective characterized by changes in the instructor's role as master when the learner becomes more competent and independent (Pratt & Collins, 2011).

Beliefs: Teaching beliefs are strongly felt ideals which instructors hold regarding the teaching-learning process (Entwistle, Skinner, Entwistle & Sandra, 2000; Tillema, 1997). Beliefs are driven by emotions and they influence teaching actions by influencing the sense we attach to

teaching, our responses in a given *teaching situation*, and govern our interpretations of events, people, and other phenomena in the *teaching environment* (Saroyan et al., 2008).

Development: The belief in utilizing the learner's prior knowledge to guide learning through questioning and bridging knowledge on the basis of meaningful examples from the learner's point of view (Pratt & Collins, 2011).

Faculty member: A member of the group of teaching personnel in a department, college, or an entire institution of higher education responsible for designing, delivering, and assessing programs of study (Assefa, 2010).

Health: According to the World Health Organization (WHO), health is "the state of complete physical, mental and social wellbeing" (as cited in Haworth, Forshaw, & Moonie, 2007, p. 2).

Job burnout: The continuous depletion of energetic coping resources manifested in feelings of physical, emotional, and cognitive exhaustion (Shirom & Melamed, 2006). To Freudenberger (1974), job burnout was an individual's perception of personal failure and feelings of exhaustion, due to excessive demands on a person's energy, strength, and coping resources.

Job stress: The resulting negative physiological response(s) arising from the mismatch between job demands and the individual's needs, capabilities, and resources. Depression, job burnout, bodily disorders, including heart disease and cancer, are possible consequences of job stress (Gabriel, 2000).

Job turnover: An individual's decision to leave his or her current section, department, or employer for another job irrespective of whether the person continues as an instructor or not (Rosser, 2004).

Nurturing: The perspective that self-concept and therefore self-efficacy is key to learning; it occurs when learners are nurtured into reaching success due to their own ability and efforts with the instructor's help (Pratt & Collins, 2011).

Social reform: The belief in instructors as change agents who challenge the status quo. Students are prepared to take a critical approach to knowledge acquisition as a way of empowering them for social action (Pratt & Collins, 2011).

Strain: A term sometimes used to refer to an individual's responses to sources of physical and psychological pressure (demands) from his or her environment (Kinman, 2010).

Stress: An organism's physical and psychological responses to the environmental demands made of it. The presence of stress may alter blood pressure, breathing, muscular tension, sweating, and heart activity. Little stress may imply lack of enough motivation for action and high stress affects a person's physical health (Gabriel, 2000).

Student: A learner enrolled in university courses of level 1000 or higher for the attainment of credit(s) (Harrison, 2000).

Teaching: The undertaking of tasks and activities, including the impartation of knowledge and skill, with the intention of inducing learning (Smith, 1960).

Teaching perspective: The justification an instructor provides for the way he or she teaches; a teaching perspective (also referred to as conceptions) emanates from an individual's teaching beliefs which, in turn, give rise to his or her intentions and actions (Pratt & Collins, 2011).

Transmission: A teaching perspective whose main concern is the efficient and accurate representation of content to the learner (Pratt & Collins, 2011).

Wellbeing: A judgment by the individual regarding how he or she feels and whether he or she has fulfilling or meaningful working relationships with other people. Good feelings and good relationships are associated with high levels of wellbeing (Haworth, Forshaw, & Moonie, 2007).

Workplace: The setting where a service such as instruction is rendered by an individual for remuneration that is paid by an employer (Mallock, Evans, & O'Connor, 2011).

Summary

Nationwide studies conducted by the Higher Education Research Institute (HERI) between 2001 and 2011 confirmed the ever present effects of workplace stress and job burnout among university faculty members. One of the external factors that contributed to workplace stress was the United States' decline in manufacturing beginning in 2007 and associated industrial restructuring in its work organizations. Reduction in revenue from industry meant State and Federal support for higher education institutions was reduced. To compensate, these institutions increased their revenue bases through higher enrollments (NIOSH, 2011).

Increases in enrollment without commensurate increases in the number of instructors resulted in more work and time pressures for instructors, which was a recipe for workplace stress with the possibility of job burnout increasing on the part of some employees if the stress was prolonged (NIOSH, 2011). Perceptions of workplace stress depend on an individual instructor's culture, biology, and context (Smith et al., 1995). Occupational self-efficacy also influences the individual's perceptions of job burnout (Matsui & Onglatco, 1992). Further, an individual's cognitive processing of the instructional environment, prior experiences with instruction, and expectations, impact the instructor's response to perceived job burnout and the perceptions of himself or herself as a practitioner (self-as-instructor), i.e., the instructor's teaching perspective (Pratt & Associates, 1998).

Job burnout has been associated with such negative consequences as absenteeism, low work output, troubled family functioning (Maslach & Leiter, 1997), and poor interpersonal relations (Stanley, 2006). Among university faculty, about 25% of all job turnovers were attributed to job burnout (Lindholm & Szélényi, 2008). Institutions face costly consequences of faculty job turnover whenever disruptions in teaching and research occur (Rosser, 2004).

None of the studies reviewed by the researcher had examined the possible link between instructor's perceptions of self-as-practitioner, perceived job burnout, and job turnover intention. However, studies by Smith et al. (1995) and Lindholm and Szélényi (2008) indicated that instructors' experiences of workplace stress, as based on academic discipline, differed from their experiences of stress attributed to personal characteristics. Clark (1997) made the point that continued differentiations based on disciplinary specializations at universities promoted particular attitudes towards teaching and certain formats of teaching. This assertion lent strength to the researcher's working hypothesis that an individual instructor's teaching perspective(s) and teaching practices were likely to vary by discipline. As a consequence, job burnout – as a response to contextual stressors and accompanying job turnover intention – could be expected to vary by an instructor's dominant teaching perspective(s) (Pratt & Associates, 1998).

Investigating the link between teaching perspectives, perceptions of job burnout, and job turnover intention was expected to help identify segments of OSU faculty who were at high risk of job burnout, provide research participants with opportunities for reflection on their teaching missions, and assist them in clarifying their teaching perspectives. Findings of this study may provide OSU officials with recommendations for strategically intervening to address both job burnout and job turnover intentions of faculty members with teaching appointments, as may be necessary.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter presents relevant literature on topics which helped the researcher argue for a need to investigate the influence of teaching perspectives and job burnout on instructors' job turnover intentions, especially in regard to university instructors. The construct of stress is discussed and a picture of work-related stress is described; thereafter, definitions of the constructs of stress and job burnout, as adopted for this study, are provided. These aspects of the literature are followed by a presentation of the theoretical frame of the study. In the chapter, the researcher discusses findings of national surveys from the United Kingdom, Australia, Canada, and the United States with respect to job burnout among university faculty. The concept of teaching perspectives is also presented in this chapter with links to job burnout and job turnover intentions.

The Construct of Stress

The use of the word *stress* in relation to work was an analogy to the law of physics advanced by Robert Hooke in the early 1900s. Under Hooke's law, a load exerts force on a spring or wire thereby creating *stress* and *strain* on it and as the load is increased, a point of no return is reached when the spring or wire breaks. By association, a lifestyle of exertion was associated with stress (Willis, 1994). Different disciplines have defined stress in different ways.

Examples from physiology, psychology, sociology, and the study of other occupations should help paint a picture of the different ways the construct of stress has been viewed.

Work-Related Stress

The World Health Organization (WHO) estimated heart disease and depression would be the leading causes of disability by 2020 (NIOSH, 2010). Both conditions were linked to work stress. Blix et al. (1994) reported job-related stress was among the top 10 health problems of the workplace. They stated stress affected workers physically, psychologically, and behaviorally, which resulted in absenteeism, low productivity, and job turnover. Stress at the workplace is deemed to arise from an imbalance between job demands and workers' capabilities, resources, and needs. The consequences of this imbalance not only includes losses in productivity and job-related injuries but also poor health (NIOSH, 2010), lowered staff morale, poor service quality, and customer outcomes (Lee, Scheunemann, Hall, & Payne, 2012).

Physiological Perspectives of Stress

Under this perspective, stress is viewed as a reaction by the organism to a negative stimulus in its attempt to restore normal functioning. In particular, Canon (1935) stated the human reaction which begins with responses to the stimulus by the brain, and was followed by both physiological and emotional reactions, was evidence of stress. A stress reaction was associated with increased heart-rate in high-arousal situations, which the organism interprets as threats. When tensions due to physical exertion or continuous exposure to threats accumulate in particular systems of the body, they may produce psychosomatic stress, i.e., physiological reactions, elsewhere in the individual's body. Therefore, in its interaction with the environment, forces external to the human organism create wear and tear on the body. Selye (1956) defined stress as a response to changes which made physical, emotional, and psychological demands on individuals. The energy required for the human organism to adapt to the environment, i.e., to environmental

stressors, is viewed as finite and its economical use is advised. Similar to Hooke's law, over-exertion leads to exhaustion, frustration, demotivation, and other negative states manifested by stress.

Psychological Perspectives of Stress

The construct of stress also has been shaped by various theories in psychology to explain frustration, conflict, alienation, anxiety, and emotional disturbance (Lazarus & Folkman, 1984). Treated as a trait, stress could be associated with individuals who have greater likelihood of experiencing anxiety because they feel vulnerable (Willis, 1994). Such people developmental states exemplified by tension, apprehension, and heightened arousal. Frequent exposure to such conditions is said to promote the development of strategies, i.e., coping mechanisms, for mitigating anxiety over time. Beck (1984) classified some people as *sociotropic-dependent* if their personalities made them stressed, e.g., they overreact and are overly sensitive. In addition, such individuals need confirmation and rely on support from others a lot. On the other hand, *autonomous-personality* individuals are described as different for their problem-solving, proactive orientation to stressful situations. When monitored for symptoms of stress, the latter group had fewer stress-related conditions. Kobasa (1979) described individuals who suffered less stress as hardy. He stated they were committed to personal values and beliefs which allowed them to deal with stressful situations with control because they perceived stress as challenges. Finfgeld (1999) noted, "hardy people perceived adverse situations as meaningful, controllable to at least some degree, and as opportunities for them" (p. 18).

Stress and emotional expression are also related by cognitive theories of stress. The ability of the human brain to selectively permit bodily responses to stimuli is thought to be the basis for emotional feelings (Lazarus, 1991). Schachter and Singer (1962) proposed two related suppositions: 1) the degree of emotional experience was an indicator of an individual's emotional

arousal; and, 2) an individual's perceptions (sense-making) arising from the emotional experience determines his or her emotional level. Therefore, how an event is interpreted has implications for the individual's emotional response (Hassett & White, 1989). Mikhail (1981) viewed stress as the condition resulting from either real or perceived mismatches between demands and capabilities of an organism's adaptive efforts. These attempts may be evinced by nonspecific behaviors as a part of the person's stress response.

Stress has been linked to lifestyles as in the case of Type A and Type B personalities. Type A personality is usually associated with stress exhibited as lifestyle extremes in job involvement due to strong but sometimes not well defined goals (Willis, 1994). Due to the clamor to get ahead or progress in a person's job world, Type A persons usually operated with a sense of perfection and urgency, and in the process exerted themselves a lot (Willis, 1994). As tensions build or accumulate due to this lifestyle, individuals become aggressive and hostile but also insecure because of the prospects of failure.

Sociological Perspectives of Stress

Pearlin (1993) viewed societal structures as the cause of stress. Structuring society in such a way as not to facilitate integration of the different cultural systems has repercussions on members of that society. Pearlin (1993) argued a society could have ideals and fail to live by them; a society could socialize more people than it has the capacity to enable their success; and, society may socialize young males such that on reaching adulthood, they encounter personality differences hard to reconcile with their childhood mental models. According to Hornung (1978), the *misfit* or confusion between societal structures and individual desires for social advancement was a recipe for stress. Pearlin and Radabaugh (1976) conducted a study in which they established that an individual's level of distress in society was negatively related to his or her income but the person's socio-economic status was an undeniable structural reality of society.

The psychological functioning of the different socio-economic strata of society was less a matter of the individual and more the consequence of societal structure, as faced by the individual (Catalano & Dooley, 1977).

Two definitions of stress are instructive from this perspective. Pearlin's (1993) definition of stress was, "the consequence of engagement in social institutions whose very structures and functioning can engender and sustain patterns of conflict, confusion, and distress" (p. 311). And from Dohrenwend's (1961) social-psychological stance, stress was viewed as a state, i.e., the result of any behavior under pressure regardless of its adaptability.

Occupational Perspectives of Stress

To Bandura (2003), occupational stress was a negative emotional state that arose from perceived or actual overwhelming occupational responsibilities. According to Harry Levinson, the business industry showed the most concern with occupational stress owing to its desire to stem absenteeism, alcoholism, and industrial accidents (Willis, 1994). Willis (1994) noted the rise of psychosomatic medicine, curiosity with Selye's (1976) General Adaptation Syndrome, and the strategy to reduce work-related *fatigue* through scientific management techniques (Drucker, 1973). In addition, the goals of the Life Extension Institute seem to have promoted the study of occupational stress. Most occupational stress models are tailored by researchers who employ mixes of perspectives from those discussed above. Relevant to this study was the *conservation of resources model* which presents the central thesis that a perceived lack of physical or psychological resources undermines an individual's occupational self-efficacy (Hobfoll, 1989). When the individual is ill-equipped to perform required tasks, stress may result (Willis, 1994). This position resonates with Gleeson (1986) who saw stress as "the anticipation of negative consequences when one is unable to respond adequately to a perceived demand" (p. 9).

Stress and Job Burnout in this Study

Although stress may arise from many types of stressors, job burnout may arise from working with people in a particular workplace setting such as being a faculty member at a university. Maslach and Leiter (1997) viewed the construct of job burnout differently. To Maslach and Leiter (1997), job burnout encompassed the individual's emotional reaction, feelings of weariness, disinterest in work, and reduced performance. These dimensions were not the result of theory deduced empirically but rather heuristically derived findings from a factor analytic study (Shirom & Melamed, 2006). On the other hand, Shirom and Melamed (2006) named physical, emotional, and cognitive exhaustion as the three components of job burnout. They focused on the expending of energetic coping resources, i.e., forms of physical-psychological energy which were possessed by the individual, closely related, and affected each other. The three components did not overlap with other social science constructs unlike the conception of job burnout posited by Maslach and Leiter (1997).

Shirom and Melamed (2006) posited the Maslach and Leiter (1997) conception could be used with studies in which the focus was physical exhaustion, where the response expected is cynicism, and the consequence being lowered personal efficacy. The focus of this study, however, was the experiencing of physical, emotional, and cognitive exhaustion as measured using the Sirom-Melamed Burnout Measure (SMBM). Physical exhaustion, therefore, was considered a component of the individual's conceptions of job burnout.

As a variable, job burnout is continuous because it can be experienced in degrees from mild to severe forms. Investigations reviewed in this research study were considered to involve job-related perceptions of burnout even if reported as job stress studies, provided the focus was on the interpersonal interaction of university instructors as service providers (Watts & Robertson, 2011). In studies conducted on the basis of Maslach's and Leiter's (1997) conceptualization of

job burnout, only findings relating to physical exhaustion were referenced because it is common to both conceptualizations of job burnout. Although the words *job stress* may be used in the original works cited for this study, job burnout was inferred by the researcher. According to Maslach and Leiter (1997), job burnout is an erosion of the positive psychological state in which energy for work turned into job-related exhaustion. Somewhat related, Maslach, Schaufeli and Leiter (2001) found that the individual worker's negative attitudes or behaviors reduced his or her productivity on the job.

Theoretical Framework

The two conceptual models used to explain the occurrence of stress agree on the role of *demands* from the work environment in regard to the job burnout experienced by some individuals. However, the models differ on the means of response by individuals to such demands. The Kasarek (1979) model emphasized the role of *control* and Bakker, Demerouti, De Boer, and Schaufeli (2003) proposed the job *demands and resources model* for explaining job burnout. Adverse effects on an employee's health could be prevented even under work conditions of high demand provided the individual has sufficient *control*, i.e., the freedom to make pertinent decisions about the job (Hu, Schaufeli, & Taris, 2011). The ability to make key decisions about how to do the job acts as a shield against job stress. In contrast, Bakker and Demerouti (2007) proposed that a sufficiency of resources increased motivation to levels where job-related stress would not appear even if performing high demand tasks. They considered job demands to be physical and psychological whereas resources were either assets that reduced job demands, equipment making tasks achievable, or strategies which promoted individual growth, including learning and development. Therefore, *demands* were stress-generating but *resources* motivational and thereby stress-mitigating. In addition, *resources* could take material or nonmaterial form.

Maslach and Jackson (1993) proposed a model for job burnout in terms of feelings of emotional tiredness, work disinterest, and declining performance. However, a more complete conceptualization was advanced by Shirom (2003). The Shirom-Melamed conception of job burnout originated in the Conservation of Resources (COR) theory, as advanced by Hobfoll (1989). According to the COR theory, when the individual values *something*, he or she develops the urge to obtain, possess, and nurture it. Such *things* may be material, social, or energetic and are known as *resources.* The Shirom-Melamed concept of job burnout includes physical, emotional, and cognitive energy; a grouping of energetic resources only. By this theory, stress results from the possibility of resource loss, actual resource loss, or the failure to regain lost resources (Shirom, 2003). When stress occurs in cycles of demanding encounters which deplete the resources store (as work-related stress often does), the experience of resource loss over time leads to job burnout. Thus, job burnout occurs later than stress and is workplace related (Schaufeli & Peeters, 2000).

Employees are expected to be more sensitive to environmental stressors that threatened their resources because the loss of resources involved higher stakes than did their gain (Hobfoll, 1989). This was the case because after the loss of resources, investing in replacement or new resources usually does not yield returns at an individual's desired or anticipated rate (Shirom, 2003). In this scenario, the resource loss cannot be compensated for through expansion, borrowing, or alternative investment. In its early stages, job burnout begins expending the energy resources meant for coping with work-related stress. When the coping behaviors deployed are overcome by increased demands, the individual either gives up or employs defensive behaviors such as detachment and withdrawal (Shirom, 2003). After the energies directed to problem solving are exhausted, individuals begin to distance themselves from their customers or clients or in the case of teachers and university professors, their students. The individual may withdraw and adopt cynical attitudes towards the intended recipients of their service (Shirom, 2003).

The Job Demands of an Effective University Faculty Member

Bess (1998) described in detail what the university instructor's job entailed. He identified pedagogy, delivery, evaluation, and research as the four roles required for an instructor to be effective. Bess (1998) posited that the effective discharge of each role required talent as much as it did acquisition of knowledge and skills. The instructor who would be effective at pedagogy had to succeed at sourcing for knowledge, collating it, transforming it for students' use with a range of technologies, and making it suitable for different teaching contexts. This range of skills, however, was not what the same instructor would need for effective delivery of planned lessons to students of different grades or classifications. Effective delivery required the skills of a talented theater artist, according to Bess (1998), i.e., a skilled communicator and presenter, ability to discern the audience's non-verbal cues, effective handling of visual and auditory variables, and acute differentiation of and reaction to the learners' moods and emotions.

The evaluation role demands the instructor obtain knowledge of the desired and achieved results, determine causes for non-achievement of educational goals, and notice as well as account for discrepancies which could affect students' attainment of the prescribed learning standards. Bess (1998) also stated effective evaluation demanded the skills of a measurement professional with the ability to issue considerate feedback to the learners in a timely manner. An individual instructor does not have to be good at either pedagogy or delivery to be effective at evaluation; these are separate competencies, according to Bess (1998).

Conducting research is another time-intensive role which not every instructor could effectively undertake alongside the other roles. According to Blix et al. (1994), the role of researcher was thought to generate more stress than teaching. To Bess (1998), the instructor who excelled at this role was one who enjoyed logical organization of ideas, discovery, and the assembly of concepts with a view to creating knowledge. The research function is the one which

put instructors at higher risk of stress according to studies by several researchers (Kinman, 2001; Smith, Anderson, & Lovrich, 1995; Watts & Robertson, 2011).

Bess (1998) argued individual instructors were unlikely to excel in all four roles because of the different nature of the demands of each role and the limited skills set possessed by individuals. Kane, Sandretto, and Heath (2004) asserted teaching was more complicated than could be suggested by any list of good teaching characteristics which could be developed. Moehl (2011) cited Brookfield as dismissing the whole notion of effective teaching by asserting the diversity of learners in modern classrooms. Therefore, it was impossible for any instructor to demonstrate the effective habits of teaching required to meet the myriad of needs found there. Expecting a worker to perform at a high standard on a wide set of tasks is to set up the individual for failure, frustration, and demotivation (Bess, 1998).

On account of these four roles, chronic job stress is possible for university instructors whose capacities do not meet the rising demands which are often compounded by other responsibilities. For example, growing student enrollment and limited incentives or rewards are conditions which could intensify a university instructor's perceptions of job stress. The onset of job burnout under these circumstances may be only a matter of time and an individual's hardiness (Kobassa, 1979) or strength of coping mechanisms.

In a national survey of occupational stress among staff of Canadian universities, 85% of the sample indicated workload as the prime stressor followed by role-conflict as indicated by 82% of the sample (Catano et al., 2010). According to Blix et al. (1994), heavy workload was the reason mentioned most by 400 randomly selected tenured instructors from institutions of higher education in California. Effective instructors must not only have good coping strategies for weathering high job stress, but also hold strong beliefs about what they do as instructors. When asked if they would opt for a different career, 63% of responding instructors from England and

85% from Israel preferred the same occupation (Winefield, Gillespie, Stough, Dua, Hapuarachchi, & Boyd, 2003), if they were to choose again.

Trends of Job Stress Levels Among University Faculty

Depending on their objectives and the theory used, different researchers identified various aspects of job stress and job burnout among their samples of university faculty members. Employing a motivational theory of stress to categorize participants into three groups, Blix et al. (1994) measured stress as the imbalance between workers' needs and job rewards using scales for job satisfaction, productivity, job burnout, and perceived work stress. Physical symptoms of stress and intent to leave a workplace were additional outcome variables. The researchers' (Blix et al., 1994) findings indicated the respondents experienced the most stress from conducting research, teaching, professional activities, and outreach-related service, respectively. About one-half of the sample of 400 university instructors reported problems related to physical health and a similar number were satisfied with their teaching up to 90% of the time.

Smith et al. (1995) adopted the stress cycle theory and set out to identify patterns of stress among 786 participants drawn from one large land-grant university. The researchers found that for a section (33%) of the sample, their stress varied by academic discipline. Faculty members who were assistant and associate professors reported more causes of stress, and the leading cause of stress were the high expectations they set for themselves. Securing funding for research was ranked the second leading stressor, insufficient time for tasks was third ranked, and inadequate salary was fourth ranked. Smith et al. (1995) reported similar levels of stress among instructors in education and educational administration (soft, applied, and life), math and physical sciences (hard, pure, and nonlife), and engineering disciplines categorized as hard, applied, and nonlife. Members of these disciplines reported higher stress than their counterparts in the biological sciences, i.e., hard, pure, and life and the soft, pure, and nonlife disciplines, including languages

and philosophy. Gugliemi and Tatrow (1998), however, argued the same job title did not necessarily imply instructors were exposed to the same stressors because they did not constitute a homogenous group and the findings by Smith et al. (1995), based on academic discipline as a predictor variable, indicated stress differentiation. Moreover, it was also possible the differences were the result of acquired teaching practices which reflected adjustments over time in instructors' beliefs about how students in the various disciplines learned. This may imply that the reason for the observed differences in perceived job stress by discipline were differences in teaching perspectives. Xu (2008) advocated for criticality of the discipline-specific research by stating the academic specialties of instructors influenced their way of thinking about given situations as well as their behaviors.

Environmental factors can be expected to cause variations in work stress over time even if other person-factors remained constant. The 2001 ILO job stress research findings from several countries, including the United States, indicated 26% to 31% of the participants in the national samples experienced extreme work stress (Heol et al., 2001). Winefield et al. (2003) applied Karasek's demand-control theory of job related stress with a national sample of 9,000 Australian instructors. Indicators of job satisfaction and general health questionnaire items were used to measure stress in this study. Their findings indicated the group of faculty members involved in teaching and research exhibited the most stress, followed by the group which only taught. The faculty members suffered more than three times the stress levels found in the general population (Winefield et al., 2003). Further, respondents who taught and also engaged in research reported the least satisfaction with their jobs (Winefield et al., 2003).

Although the case for instructors in Canada was not as extreme, Catano et al. (2010) reported job stress among members of academia exceeded that in the general population. Instructors aged 20 to 29 years and those aged 60 and above reported lower stress levels than respondents whose ages were in between (Catano et al., 2010). Workload, role-conflict, low

salaries, and administration-related issues were considered the top four stressors, according to Catano et al. (2010). Kinman (2001) stated instructors who had 10 or fewer years of university teaching experience were the most vulnerable to job stress (attributable to job insecurity) and those with more than 20 years of teaching had less stress. From the United Kingdom, Mark and Smith (2010) surveyed a mixed sample of 427 participants drawn from the general public and from universities. Using the Effort-Reward model of job stress, they determined that 31.6% of university staff scored higher than prescribed safe stress levels on job-related measures of anxiety (Mark & Smith, 2010). From the general population, 18.3% of the participants surpassed the safe job stress level (Mark & Smith, 2010). Job stress occurred with more frequency among university instructors than in the general populations of the countries studied, including the United States. The priority stressors, however, were not consistent among the studies.

Gender and Job Stress

By 1996 it had been demonstrated an association between job stress and blood pressure level could be more easily detected in men than in women according to Schwartz, Pickering, and Landsbergis (1996). In a review of literature on job burnout in universities, Watts and Robertson (2011) found that in all the studies they reviewed, a reference was made to the influence of gender on work stress because researchers were aware of the fact women responded differently to stressful situations than men. In her study involving 80 universities and colleges with 1,920 randomly selected faculty members, Gleeson (1986) investigated the role of gender socialization patterns, occupational and family roles, and discriminatory practices on participants' job stress.

Gleeson (1986) was aware of the claims that the academic work environment was a male-dominated workplace with negative consequences for females. According to Gulligan, because men were socialized to fit the objective, aggressive, achievement-oriented, courageous, and ambitious personality type, women approached a work setting conducive to male traits with fear

and were psychologically stressed to be in what they perceived as a threatening environment (as cited in Gleeson, 1986). On the contrary, women were socialized to have a subjective, compliant, nurturant, emotional, and loyal personality type inconsistent with men's socialization. It was for this reason Bellas (1999) and Bellas and Toutkoushian (1999) stated women were socialized to work as teachers, advisors, and service providers. As a consequence of such divergent socialization practices, women were expected to view competitiveness against male colleagues as *unfeminine* and would unconsciously tend to downplay their abilities to avoid levels of success which were not perceived as typical of women (as cited in Gleeson, 1986). Hesse-Biber and Williamson (1984) suggested women tended to under-estimate their potential, and at the same time exaggerated their perceived liabilities. Failures were attributed to flaws within themselves rather than to environmental factors. Nevertheless, could instructors engage in variant teaching practices or hold different teaching perspectives based on their gender-based expectations for learners?

Gleeson (1986) identified occupational and family roles as the second aspect of job-related gender differences. Socialization prepared individuals for adult roles. Females were socialized to meet feminine, family, and occupational roles simultaneously. Women experienced stress as they found themselves struggling to balance both their time and efforts between the three roles. Koester and Clark asserted the highest stress and least job satisfaction among women was the result of their struggles to meet both occupational and family demands (as cited in Gleeson, 1986). As a result, many women in academia experienced failure, exhaustion, and felt guilty much more because they also set high expectations.

Yogev (1981) found married women who were employed, out-worked their husbands three-to-one in hours on weekly domestic chores, but, at the same time, worked in their jobs 10 hours less than their husbands. Thorsen (1996) explained that when individuals have many deadlines to meet and numerous tasks to perform, they worked under time pressures and became

stressed. Time constraints may over-stretch women's abilities to cope with task demands and lead to their experiencing job stress. In addition to these struggles, Perry (1983) noted women suffered from stereotypes at work and their access to power was lower in comparison to men. At times, they were paid at a lower rate and to gain recognition they had to work harder (Perry, 1983).

In Gleeson's (1986) study, however, significant differences were not found between men and women on three of the five factors which were established from their respective data. Perceived job stress was comparable for participants of both genders in relation to student interactions, developmental influence, and reward and recognition. Another finding by Gleeson (1986) was that single men perceived more stress than single women. In addition, married women perceived higher stress than single women and married men. The individuals who occupied the lower academic ranks in the universities in her study were mostly single men and married women with children. If accepting the premise women experience more job-related stress than men, is this manifested as differences in their teaching or is it influenced by their teaching perspectives? Finally, Watts and Robertson (2011) did not find, in the systematic review they conducted, any differences by gender in other components of job burnout except for emotional exhaustion.

Teaching Perspectives

Pratt (1992) defined a teaching perspective as the process of teaching and the reflections individuals attached to the actions they took during the act of teaching: "what we do as teachers and why we think such actions are worthy and justified" (p. 3). Pratt (1992) used the phrase *conceptions of teaching* to refer to teaching beliefs even when his interest was in uncovering research participants' cognitive representations of their experiences of teaching. According to Pratt and Associates (1998),

> each perspective on teaching is a complex web of actions, intentions and beliefs; each, in turn, creates its own criteria for judging or evaluating right and wrong, true and false, effective and ineffective. Perspectives determine our roles and

idealized self-images as teachers as well as the basis for reflecting on practice. (p. 35)

Beliefs, intentions, and actions were at the core of teaching perspectives.

An individual's beliefs and by extension his or her actions are a function of relevant information relating to the object of the behavior (Ajzen, 1991). At any moment, individuals attend only to a small number of significant behaviors. Prominent beliefs, therefore, shape the link between behavior and its consequences. This conferred an unfavorable or favorable attitude regarding the behavior based on consequences and in line with the strength of the individual's belief. The decision to engage in a given behavior also depended on the strength of subjective norms informing the individual's perception of anticipated approval or disapproval of the behavior by the society or culture in which his or her actions are exercised (Ajzen, 1991). Further, the presence or absence of required *resources* and opportunities and the number of perceived behavior *performance difficulties* determine the strength of control beliefs. Ajzen (1991) noted that when no problems of perceived control were evident, behaviors could be predicted from *intentions* with accuracy.

Intentions are indicators of the effort input for a behavior performance such that stronger intentions increased the probability of volitional action (Ajzen, 1991). Intentions in the presence of perceived behavior control were found to account for substantial variance in actual behavior. To engage in a desired behavior, an individual's *beliefs,* including his or her attitudes, perceptions of socially expected conduct, and capabilities with respect to behavior difficulty, resources, and opportunities, were considered significant (Ajzen, 1991).

So as not to confuse teaching perspectives with teaching philosophies, Pratt (1992) submitted that individuals subscribed to one dominant teaching perspective; or, in rare cases, two out of a possible five. He considered teaching perspectives the product of an individual's personal philosophy and situational circumstances. To Pratt and Collins (2011), a teaching philosophy

comprised the person's beliefs and intentions about the act of teaching. Effective teaching entailed the interplay between six *elements*: the teacher, the learner, the content, the ideals, the methods, and the evaluation (Pratt & Associates, 1998).

Pratt (1992) was concerned with the interpretation that participants in his study gave to the phenomenon of teaching. He assumed the inter-relationships between the elements enabled participants to interpret teaching in particular ways. Pratt (1992) reasoned that the same way culturally based conceptions made it hard for some individuals to accept other people, the way others taught required research to be understood and explored. Because beliefs, intentions, and actions were crucial to his investigations, Pratt (1992) considered them in combination rather than separately, i.e., each constituted an aspect of an individual's teaching conception. In his investigation, 253 subjects from five countries were interviewed according to a protocol so divided as to separately determine their teaching beliefs, actions, and intentions. His participants described their teaching actions, preparation, starting and ending of a lesson, and typical activities in which they engaged during the act of teaching. The participants' teaching was found to be in concert with the goals of either governments or sponsoring authorities, although some were fairly personal intentions. Their teaching purposes were extracted based on related objectives, learning assessments, and student behaviors. Teaching beliefs were, in some cases, based on social norms but in others were more akin to individual perceptions with considerable variability among the participants (Pratt, 1992).

A useful finding from Pratt's 1992 investigation was a majority of the participants had clear beliefs which they held firmly. These beliefs guided their teaching intentions and actions (Pratt, 1992). The findings of Pratt's (1992) research were summarized into five teaching perspectives differentiated by the type of *elements* comprising the perspective and the strongest relationship between them. Teaching perspectives were also grouped by the unique relationships between beliefs, intentions, and actions for individual participants. A description by Pratt and

Associates (1998) of the characteristics of holders of dominant teaching perspectives, including transmission, apprenticeship, development, nurturing, and social reform, follows.

Transmission

This perspective was characterized by the quest for efficient and accurate content delivery to the learners. Its prominent aspects were the teacher and the content, with the teacher expected to have high mastery of the learning content. Instructors who adhered to this view "make efficient use of class time, clarify misunderstandings, answer questions, provide timely feedback, correct errors, provide reviews, summarize what has been presented, direct students to appropriate resources, set high standards for achievement and develop objective means of assessing learning" (Pratt & Associates, 1998, p. 41). Under conditions of increasing workload, the expectations for efficiency and high accountability would be expected to generate time constraints that could lead to mounting job stress. The researcher expected that participants who adhered to this perspective would report substantial perceived job burnout, and more so if their job appointment also involved substantial expectations for research (Kinman, 2001).

Apprenticeship

According to Pratt and Associates (1998), the elements of importance to apprenticeship were the teacher and the content but here the teacher was also the expert who knew all. The learner passively received from the teacher and did as instructed. Under this perspective, "the content and teacher are fused as one, signifying the inseparability of teacher and content, within context" (p. 43). This perspective was associated with the process of operationalizing the teacher role as adviser, a superior to be emulated, a coach, a mentor, and a model (Dreggs, 2005). Considering the all-round expectations placed on the instructor and the imperfections of human nature, the over-emphasis on the teacher at the expense of the unique needs and differences between learners could be a source of stress when teaching at the college level. According to Bess

(1998), a university instructor could not excel in all four roles of pedagogy, delivery, research, and evaluation.

Developmental

Unlike the former two perspectives, here, the learner is more in focus and together with the teacher; they collectively formed the crucial elements. Although the context was ignored, the learner's entry knowledge was seen as an asset on which the teacher could build intellectual human potential using subject content as a means to facilitate an expansion of the student's understanding (Pratt & Associates, 1998). Adherents to this perspective were expected to help learners learn how to learn by cultivating their cognitive abilities through systematic questioning (Pratt & Associates, 1998). However, it is likely better pay, job security, conducive work environment, and physical health of instructors among their other needs, deserve attention if instructors are expected to deliver on the demands associated with this teaching perspective. Otherwise, intentions to quit could undermine their commitment to the learners as job responsibilities increase. The researcher expected instructors who strongly subscribed to this perspective to be emotionally drained by their constant interactions with students.

Nurturing

It was recognized under this perspective that the learners needed to believe in themselves as well as believe in their own positive self-image and be confident they could master the content, which, in due course, would be relevant to their lives (Dreggs, 2005). The learner's self-concept and the instructor were identified as key elements under this perspective (Pratt & Associates, 1998). The instructor enters a relationship with the learner, i.e., a contract for cooperation. As a result, the learner receives emotional support, genuine care and regard but the teacher ensures and also provides challenges as a way of supporting the student's growth. Job stress under this perspective could arise from a high student-to-instructor ratio. Moreover, not all instructors may be endowed with appropriate nurturing skills. As a result, a work environment of this nature might cause anxieties in instructor-learner interactions and thus pave the way for job stress (Pratt

& Associates, 1998). The instructor has the duty to avoid dependency to mitigate the possibility for job burnout associated with the facilitator-friend role required under this perspective.

Social reform

The focus under this teaching perspective is the group or society and not the individual learner. According to Pratt (1992), participants of every country represented in his study mentioned some emergent societal issue to which teaching could apply itself through various disciplines, including issues of the environment, technology, morality, development, and politics, as examples. Social reform was seen as a way to engage learners in critical thinking based on the learning content while focusing on reforming of the status quo (Pratt, 1992). Under this perspective, the instructor views himself or herself as the advocate for a societal ideal. "Learners and content are secondary to a broader agenda . . ." (Pratt & Associates, 1998, p. 51). However, differences were likely to occur between the instructor and students over ideology whenever students felt pressured to conform, and when dealing with students who are neutral to the ideal(s) (Pratt & Associates, 1998).

Job Burnout and Job Turnover Intention

NIOSH (2010) and Kinman (2001) stated one of the consequences of stress was the decision by the individual to leave the stressful work environment. Lee and Ashford (1996) found with increasing work stress, an individual's commitment to the organization, job involvement, and job satisfaction eroded, this toll was gradually evident in the employee's emotional exhaustion and intention to leave the organization. Intention to leave was reported to occur as one of the behavioral and attitudinal outcomes or responses to the loss of (or the failure to obtain) energetic resources, as predicted by Hobfoll's (1989) theory of conservation of resources.

Maslach (1985) established emotional exhaustion was associated with both the intention to leave and the poor performance of tasks by a worker who suffered from it. Kahill (1998) reviewed several studies and concluded the association between job burnout and intention to

leave a position had correlation coefficients ranging from $r = 0.21$ to 0.68. It was reported by some researchers, including Ducharme, Knudsen, and Roman (2008) and Kahill (1998), that among the correlates of actual job turnover, the intention to leave had the highest value. High actual job turnover negatively affects organizations by increasing the workload of the workers who remain; in addition, the quality of the work may suffer if inexperienced staff members are hired to replace those who leave (Ducharme et al., 2008).

Apart from the use of a rewards system to incentivize workers, supervisor support was also reported to suppress job turnover for organizations (Ducharme et al., 2008). Ducharme et al. (2008) found age, level of education, and the quality of training workers were given reduced participants' job turnover rates. Based on national survey data from research and doctoral-granting universities, Xu (2008) reported academic rank was associated with job turnover intentions and high research productivity reduced the intentions of faculty to leave their jobs. Xu (2008) also found when faculty members were categorized by discipline, they provided varying reasons for their job turnover decisions. Using the stress cycle theory with 786 participants drawn from one large land-grant university, Smith et al. (1995) found the levels of stress varied with the academic discipline of the participants. To prevent job turnover or to retain instructors required differing interventions. Some instructors required improved financial compensation; others considered their autonomy in teaching and research as important; and, others were keen on opportunities for advancement, a more positive work environment, more effective leadership, and increased co-worker co-operation as determinants of their intentions to leave (Xu, 2008).

Summary of the Review of Literature

From 2001 to 2011, the Higher Education Research Institute (HERI), in its national surveys, consistently found college instructors reported being stressed. According to Hurtado et al. (2012), 85% of participants in a national survey of instructors attributed workplace stress to high self-expectations, 83% to underprepared students, and 71% to workloads. The persistence of this condition and increases in the proportion of instructors who reported perceiving work-related

stress meant *job burnout* was a reality of college teaching. NIOSH (2010), Smith et al. (1995), and Lazarus and Folkman (1984) held the view that the individual instructor was responsible for the level of job stress/burnout he or she perceived. In particular, Matsui and Onglatco (1992) stated occupational self-efficacy influenced the individual's perceived level of job burnout. The demands of teaching and the workplace environment need to be weighed against the employee's perceived ability to manage such conditions (Kobasa, 1979). Shortcomings in his or her ability to meet the demands equated to deficits in the individual's psychological, material, and social resources (Bakker et al., 2003). However, individual instructors differed in many ways, including their response to workplace stressors (Smith et al., 1995), and in how they perceived themselves-as-practitioners, i.e., in terms of their teaching perspectives (Pratt & Associates, 1998).

According to Pratt (1992), effective teaching involved elements, including the instructor, the learner, the content, ideals, methods, and evaluation. Pratt (1992) stressed the importance of beliefs (ideals) about teaching. Moreover, according to Ajzen's (1991) theory of planned behavior, prominent beliefs shape the link between behavior and its consequences. However, because the society in which the individual operates provides approval/disapproval of behavior, Ajzen (1991) stated beliefs which comprised socially acceptable conduct were significant. Therefore, faculty members were expected to operate under commonly accepted beliefs or norms, even though not always spoken or written; and, likewise, intentions for teaching their discipline and beliefs held about the same led to similar teaching perspectives.

According to Willis (1994), some individuals were more likely to experience job burnout because of their reactions to anxiety. Kobasa (1979) and Finfgeld (1999) described individuals who suffered less stress as *hardy* because they interpreted stressful situations as challenges to negotiate and overcome. Pearlin (1993) considered socialization as placing certain expectations on individuals; the failure to meet the expectations created conflict, confusion, and even distress in some individuals. Gender-based socialization (Gleeson, 1986), the high expectations they set

for themselves (Hurtado et al., 2012), and the time pressures resulting from increased workload, meant that female instructors perceived more stress/job burnout than their male counterparts (Thorsen, 1996).

Bess (1998) argued that the college instructor's job, which included pedagogy, delivery, evaluation, and research, was overwhelming and no individual could undertake it *effectively*. Bess (1998) explained that it takes more than the capacity of an individual to effectively perform all four roles. Brookfield (2006) asserted the reason for instructors' inabilities to perform all four roles was the wide diversity found among college students, i.e., no single instructor could *effectively* meet all of their learning needs. The abovementioned positions reflect the incompatibility of the two major ways of theorizing about job burnout. The work setting could be analyzed in terms of the mismatch between job demands and the faculty member's capabilities. The alternative perspective is to treat the work environment in terms of the individual instructor's needs for the job versus the resources at his or her disposal to perform the said job (Hobfoll, 1989). This study was based on the latter point of view, i.e., job-related stress and job burnout resulted from either persistent lack or loss of needed *resources.* According to the conservation of resources theory, *resources* are material, social, or energetic in nature; *things* that individual's desire to obtain, retain, and protect because they value them (Hobfoll, 1989).

The reality of job burnout among university instructors was demonstrated by studies conducted by ILO in Australia, some countries of the European Union, and the United States (Bakker et al., 2003); the studies showed that up to 31% of those surveyed experienced extreme work-related stress. In Australia, Winefield et al. (2003) found that faculty members suffered more than three times the stress levels found in the general population. Catano et al. (2010) reported the findings of a Canadian nationwide study which found job stress among faculty members exceeded that in the general population. Mark and Smith (2010) also reported on a mixed sample of participants from the general population and universities in the United Kingdom.

They found 31.6% of participants from the universities perceived higher scores of job-related stress than what was considered safe.

The researcher considered the following definitions of stress when interpreting teaching perspectives and their association with other variables of interest. Occupational stress, in particular, as defined by Bandura (2003), is the negative emotional state that arises out of *perceived* or *actual* overwhelming occupational responsibilities. Gleeson (1986) equated it to the anticipation of adverse outcomes due to the individual's inability to respond sufficiently to *perceived* work-related demands. According to Swider and Zimmerman (2010), instructors' teaching perspectives were their mental dispositions which guided their practice. The researcher posited that an individual instructor's teaching mission, and the passion with which he or she practiced teaching, created a *practitioner life-style.* Moreover, the cultures and norms emanating from disciplinary specializations socialize faculty members to function in particular ways. This leads to *acceptable* interpretations of *self-as-instructor* and also addresses what Ajzen (1991) posited about the role of subjective norms and an individual's beliefs as precursors to action. Such *practitioner life-style* was likely to collectively influence instructors' perceptions of their workplaces and job stress/burnout. This may explain why Xu (2008) concluded instructors' academic specialties influenced their way of thinking about given situations such that they responded with common behaviors based on disciplinary affiliation. It also may be the reason why Smith et al. (1995) found that job stress/burnout varied by academic discipline.

Kinman (2001) reported that 15% of participants who perceived job stress had job turnover intent. NIOSH (2010) stated job turnover was one of the consequences of job burnout, and Lee and Ashford (1996) found that an individual's commitment to an organization waned with increased work stress. In a study of U.S. instructors by Blix et al. (1994), it was found that 15% of the participants contemplated quitting their jobs if they perceived high job stress one-half or more of the time. Maslach and Jackson (1985) found an association between participants'

emotional exhaustion and job turnover intent. Therefore, how individuals process stressful workplace environments not only influences their perception of job stress/burnout such that they cope with a certain *style* or array of behaviors, persistent workplace stress, i.e., job burnout, could result in shifts in their beliefs about teaching and how they perceive selves-as-instructors. This has a bearing on the *practitioner life-style* they adopt and, depending on the level of the perceived job stress/burnout, they may contemplate job turnover. Therefore, this exploratory study was designed to describe the nature of the associations between the study participants' perceptions of job stress/burnout, job turnover intentions, and dominant teaching perspectives. A mediator/moderator model to fit the data collected was hypothesized based on the researcher's review of literature.

CHAPTER III

METHODOLOGY

Introduction

In this chapter, the researcher sets out the methods and procedures that were used to collect data required to answer the research questions posed in Chapter One. A postulation of the influence of teaching perspectives and job burnout on job turnover intentions is provided. The research design, population, sample, data collection instruments, procedures of data collection, and data analyses that were employed are presented in this chapter.

Institutional Review Board

The Oklahoma State University Office of University Research Services and the Institutional Review Board (IRB) first reviewed and approved the application to conduct research as a way of ensuring the research process was responsible and ethical and assigned the number AG1340 to this study (Appendix A). Following a pilot of the survey questionnaire, it was necessary to make adjustments to increase the response rate of the survey. As a consequence, the IRB had to review a second application which included modifications to the survey questionnaire as explained below. The final approval by IRB appears as Appendix B.

Purpose of the Study

The multifold purpose of this study was to explore and describe associations between the instructors' scores of perceived job burnout, measures of dominant teaching perspectives as per the *Teaching Perspectives Inventory* (TPI), and their job turnover intentions. Further, the study also sought to describe the influence of participants' personal and professional characteristics on the associations between perceptions of job burnout and job turnover intentions. Data was collected during the fall semester between October 28th and November 13th, 2013.

Research Questions

Seven research questions guided the study:

1. What were selected personal and professional characteristics of the participants?

2. What were the participants' dominant teaching perspectives?

3. What levels of job burnout were reported by the participants?

4. What levels of job turnover intentions were reported by the participants?

5. Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?

6. Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?

7. Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?

Research Design

A research design is a plan of the conduct of a study. It is concerned with the data to be collected, as well as why and how it will be analyzed (Babbie, 2007). Causal modeling, also known as *path analysis,* was the design applied to this study. Path analysis was developed in 1918 by Sewall Wright as a method for studying both direct and indirect effects of *causal variables* on variables that were treated as *effects* (Wright, 1934). As a method, path analysis was not intended to discover causes but to provide evidence based on knowledge and theory regarding the appropriateness of a proposed model in relation to empirical data (Ary, Jacobs, & Razavieh, 1996).

Pedhazur (1997) stated multiple regressions could be viewed as special cases of path analyses and the two approaches shared most of the assumptions governing the use of either model. The regression of a predicted variable (Y) on a linear set of predictors (X_i) and the subsequent interpretation of regression coefficients is an example of path analysis (Pedhazur, 1997). For simple models, both multiple regression and path analysis lead to the same conclusions. The goal of path analysis is to predict the regression weights and to compare them to the observed correlation matrix. Under path analysis, the set of predictors, X_i and the predicted Y, can be linked in multiple ways thereby creating variety in direct and indirect effects. Path analysis also permits statistical comparison of alternative models based on the same variables that may be linked differently. This way, path analysis allows for more detailed analysis because both direct and indirect effects are reported. When paths with negligible path coefficients are removed and new coefficients are calculated, the magnitudes of elements of the residual matrix are used as indicators of the effectiveness of the causal model. Ideally, the elements of the residual matrix should approach zero (Ary et al., 1996). According to Maruyama (1998), causal modeling is suitable when variables cannot be manipulated for ethical reasons, the groups to be compared vary in size, and correlational data is available.

The absence of a direct effect under path analysis (unlike with regression) does not mean a particular *X* is an unimportant predictor of *Y*; *X* may have important indirect effects. In this study, X_1 was obtained as the summed scores of teaching beliefs (B), intentions (I), and actions (A) of the study's participants. The sum represented a kind of *commitment to teaching* score that was attributable to intrinsic motivational factors of the participant (Pratt & Collins, 2011). Similarly, totals from scores for physical exhaustion (PE), cognitive exhaustion (CE), and emotional exhaustion (EE) yielded the second predictor, X_2 that represented perceived job burnout. Job burnout among faculty contributes to instructor-demotivation aside from other workplace stressors (Kiziltepe, 2008). The predicted variable *Y* was the participant's score for job turnover intention.

Figure 1 illustrates the conceptual relationships between the observed, latent, exogenous, endogenous, dependent, and independent variables required for a path analysis. Beliefs, intentions, actions, as well as physical, cognitive, and emotional exhaustion, including job turnover intention were the *observed variables* that were measured using the instruments employed in this study. Variables that were not directly measured such as *teaching perspectives* and *job burnout* were derived and are referred to as *latent* variables (Maruyama, 1998; Pedhazur, 1997). Because no arrows point to beliefs, intentions, and actions (except between each other; see Figure 1), these are referred to as *exogenous* variables; the curved lines in black only indicate the three variables were correlated (Maruyama, 1998). Similarly, physical, cognitive, and emotional exhaustion, as indicators of perceived job burnout, were correlated. However, because they had arrows directed to them, and because they appear to transmit the *causal effects* to the *dependent* variable, job turnover intention, they are referred to as *endogenous* variables (Pedhazur, 1997). Teaching perspective was the *independent* variable which had five levels: transmission, apprenticeship, development, nurturing, and social reform (Pratt & Associates, 1998). Path

analysis was used to explore if the groups of variables mentioned were associated or related; the relationships were derived from their various correlations (Maruyama, 1998).

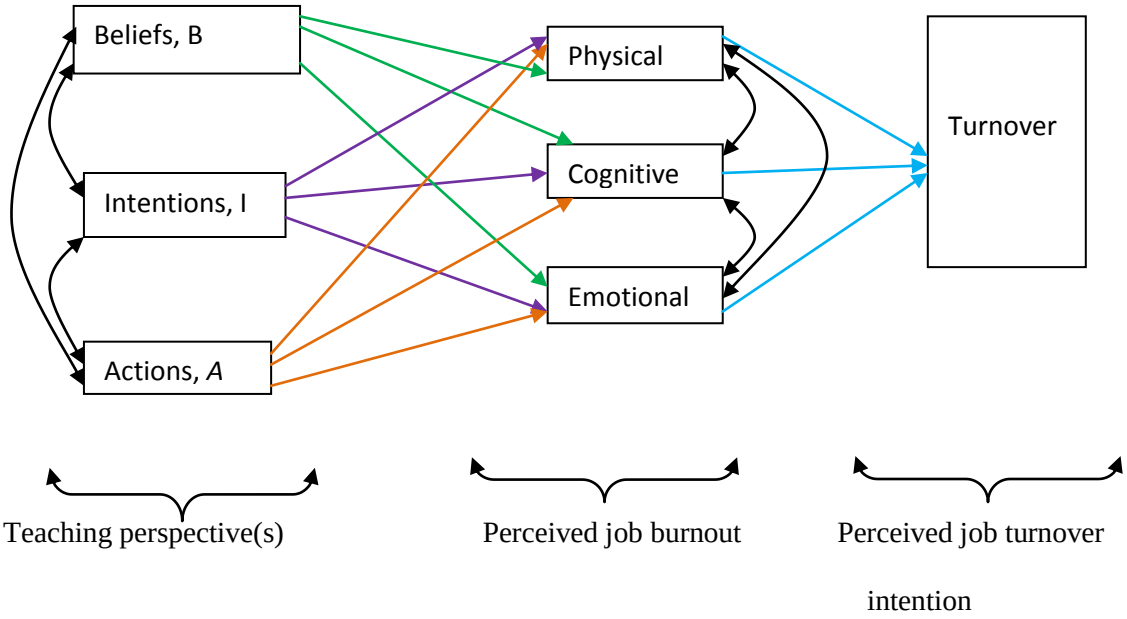

Figure 1. Conceptual illustration of the relationship between participants' teaching perspectives, perceptions of job burnout, and job turnover intentions

Study Population

The population of the study was the total number of instructors at Oklahoma State University (OSU), Stillwater campus during the fall semester of 2013. A total of 1302 instructors, as provided by the Office of Institutional Research and Information Management (OIRIM), constituted the potential participants or population for this study. The composition of these instructors by gender and country of origin is presented in Table 1.

Table 1

Composition of the Study's Population by Gender and Place of Origin

	U.S. Citizen		International		Total	
	f	%	*f*	%	*f*	%
Male	713	63.7	134	73.6	847	65.1
Female	407	36.4	48	26.4	455	34.9
Total	1120	86.1	182	13.9	1302	100.0

Study Sample

According to Green (1991), the sample size (*n*) required for a regression analysis involving multiple variables depends on the number of input variables (m) and the desired effect size for optimum power. To attain a statistical power value of 0.80 for a multiple regression analysis involving two variables, a medium effect size of 0.15, and a 5% chance of Type I error, a sample size of $n = 67$ was required (Cohen, 1992). Pedhazur (1997) and Steven (2009) suggested the ratio between the number of observations to predictors should be at least 10, 15 to be considered acceptable, and 20 was ideal. The low response rate associated with mail questionnaire surveys (Dillman, 2007) compelled the researcher to take a census. Therefore, all instructors at OSU, i.e., faculty with teaching appointments during the fall semester of 2013, for whom electronic mail addresses were provided by ORIM ($N = 1302$), were asked to participate in the study.

Data Collection Instruments

The instruments used to measure job stress/burnout in this study had to fit with the construct of stress. Coulter and Abney (2009) defined job burnout as prolonged stress associated

with the gradual erosion of resources. Crosmer (2009) reported that Freuenberger, a pioneer researcher on job burnout, viewed it as exhaustion, and excessive demands on energy, strength, and resources. Therefore, the Shirom-Melamed Burnout Measure (Appendix C) was used in this study because its construction was based on Hobfoll's (1989) theory of conservation of resources.

The Shirom-Melamed Burnout Measure (SMBM)

Permission to use the SMBM was sought by the researcher from one of its developers and is included as Appendix D. The SMBM was preferred over the Maslach Burnout Inventory (MBI) due to its potential to reveal more information because the totals across the instrument's subscales can be meaningfully interpreted (Shirom & Melamed, 2006). The SMBM was developed as a 14-item instrument with three subscales derived from the theory of conservation of resources. According to the theory, resources are assets that are individually valued. The subscales of the SMBM were designed to evaluate the participants' perceptions of their degrees of depletion of energy through physical exhaustion (PE), cognitive exhaustion (CE), and emotional exhaustion (EE). Physical exhaustion was measured using six items, five items represented cognitive exhaustion, and three items corresponded with emotional exhaustion. Each subscale was rated on a seven-point *Likert-type* or summated response scale: 1 = *Never or almost never*, 2 = *Very infrequently*, 3 = *Somewhat infrequently*, 4 = *Sometimes*, 5 = *Somewhat frequently*, 6 = *Very frequently*, and *7 = Always or almost always*. Under the subscale for emotional exhaustion, the term *co-worker* was replaced with the words *colleague and students* to fit the university context of this study.

Shirom standardized the instrument using a norm group of 10, 666 employees who worked in different jobs in Israel (Deihl, 2009). The group comprised healthy men and women. Its overall agreement with the Maslach Burnout Inventory was highly significant ($r = 0.77$, $p < 0.001$). The instrument was reported to have a Cronbach's alpha value higher than 0.91 with all of

its subscale reliability estimates above 0.84 (Deihl, 2009). The useful scores include the subscale means and the means of the total scores for each subscale. The mean scores for the norm groups by gender for the separate subscales are shown in Table 2, as according to Armon, Shirom, Berliner, and Shapira (2008).

Table 2

Norm Group Mean Scores on the SMBM

	Physical Exhaustion	Cognitive Exhaustion	Emotional Exhaustion	Total
Male	2.30	1.88	1.84	2.05
Female	2.80	2.07	1.78	2.33

The means of subscale totals were interpreted as indicators of job burnout (Shirom & Melamed, 2006).

Teaching Perspectives Inventory (TPI)

Another instrument the researcher used for data collection was the *Teaching Perspective Inventory* (TPI) (Appendix E). The researcher obtained permission to use the TPI for the study by writing an electronic mail message to its developers. The approval appears as Appendix F. This instrument was designed to establish the dominant teaching perspective of respondents without promoting or preferring one perspective over another. Pratt and Collins (2011) recognized the fact that effectiveness in teaching was a function of context, discipline, and culture. Their instrument evolved from an initial list of 200 items to 120 items, then to 75 items, and eventually to its current 45 items which were put into use as an online questionnaire in 2000 (Pratt & Collins, 2011). Teachers could take the questionnaire and receive feedback and interpretation of their test scores instantaneously after the TPI went online in 2000 (Pratt & Collins, 2011).

Beginning with a small number of participants, the Internet had facilitated more than 100,000 takers of the TPI by 2009, with 45% of the respondents coming from the United States, 23% from Canada, and the remainder from 120 other countries (Pratt & Collins, 2011). The inventory was suitable for this research study because it was designed for teachers in adult and higher education. It is widely used in the United States, and most TPI respondents have taught at the tertiary level of education for an average eight years, according to Pratt and Collins (2011). The five perspectives have been found to be distinct, i.e., low inter-perspective correlations for all scales, $r = 0.41$, and with high internal consistencies (average Cronbach's alpha = 0.76). The TPI fulfilled the test-retest one-day reliability of more than 0.6 and was expected to record higher reliability despite the diversity of test takers (Pratt & Collins (2011).

On the basis of its high reliability with a large and diverse set of respondents, the researcher considered the TPI to be a valid and reliable measure. Items on the teaching beliefs part of the TPI required respondents to agree or disagree with 15 statements by selecting one of five options on an ordinal scale: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*. On the teaching intentions portion of the TPI, participants responded to 15 items that required them to indicate how often they accomplished each teaching intention using a five-point scale: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = usually, and 5 = *always*. The teaching actions portion of the TPI used the same response scale as the teaching intentions, and asked the respondents how often they engaged in 15 actions while teaching. Each perspective had a minimum score of nine and a maximum score of 45 with an average of 34 (Pratt & Collins, 2011). The total of 45 items on the TPI included nine items for each of the five teaching perspectives. Three items addressed beliefs, three items assessed intentions, and three measured actions. No alterations were performed on the TPI items because the inventory was designed for use with educators and aligned well with the purposes of this study.

Measure of Turnover Intention

This measure was developed by Walsh, Ashford, and Hill (1985) when they investigated the role of feedback obstruction on turnover behavior among 100 sales representatives of 89 pharmaceutical groups of a nationwide company in the United States. The scale was unidimensional and comprised five *Likert-type* or summated-rating response items: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*. A Cronbach's alpha coefficient of reliability of 0.90 was reported as the standard (Walsh et al., 1985). The same items were adapted for use by the researcher with the following changes: instead of the term *company*, the word *university* was used to contextualize the item to this study. Further the phrase *sales position* was deleted and the word *with* was included. The word *firms* was replaced by the phrase *other employers*, respectively. The instrument appears as Appendix G.

Personal and Professional Characteristics

The study's participants were asked to provide personal information, including their gender, nationality, age, years of teaching at university level in the United States, and tenure status. Participants provided information on their teaching experience, training in pedagogy/andragogy, and percentages of their job appointment for teaching, research, and outreach. The participants also provided information about the courses they taught face-to-face and online, the number of undergraduate and graduate students then enrolled in their classes, as well as a list of the courses they taught. In addition, the participants indicated the highest college degree they held, the last time they took sabbatical leave, and their college affiliation. This information enabled the researcher to delineate job variations in job burnout and perspective trends occurring among the participants depending on their self-selected personal variables (Pattern, 2005).

Data Collection Procedures

The Pilot Study

A pilot study was conducted to determine the suitability of the chosen instruments and whether they needed modification. According to Pattern (2004), pilot studies enable the researcher to get information about the suitability of the proposed research procedures and the selected instrumentation. Because this study was designed to be anonymous, the researcher, in consultation with his dissertation committee, conducted a pilot study with 50 instructors randomly selected from all of the OSU colleges. The sample size of the pilot study was determined after considering its two purposes. The first purpose was to assess the feasibility of efficiently delivering the survey questionnaire through electronic mail given that, at times, the reliability of OSU's electronic mailing service was inconsistent. For this function, Hertzog (2008) recommended a sample size of 10 to 15 responses for a pilot study.

The second function of the pilot study was to collect data for use in determining the reliability estimates of the instruments. Hertzog (2008) recommended a minimum of 25 responses be provided by a pilot study, but 35 responses would be ideal. According to the IRB approved research protocol, a pre-notice electronic message (Appendix H) was sent to the pilot study's intended participants on Ocober 3, 2013, which was three days prior to sending the "invitation to participate" (Appendix I) in the pilot study (Dillman, 2007). The invitation message sent on October 6, 2013 provided a link for accessing the survey questionnaire, which was developed using *Qualtrics*® computer software. The potential participants were asked to respond within seven days of receiving the electronic mail invitation. Participants accessed and responded to the survey questionnaire only once, and access was tied to an individual's informed consent.

Nine of the 50 instructors responded which yielded an 18% response rate but with parts of the questionnaire not attempted in some cases. The questionnaire portion that required

participants to generate their own random code before proceeding to the second online part of the questionnaire proved cumbersome to the respondents. As a result of the pilot study, the two segments of the questionnaire were combined into one continuous instrument; participants of the full study were not required to generate a random code rather *Qualtrics*® assigned them an identifier that was unknown to the researcher. This maintained participants' anonymity and aligned with the research protocol, as approved by OSU's IRB. In addition, the participants' personal and professional attributes, section C of the questionnaire, was interchanged with section D, the *Teaching Perspectives Inventory* (TPI). The change was meant to make the last section easier for respondents to complete as well as to increase the instrument's face validity by displaying the TPI earlier. Other findings from the pilot study were encouraging as Table 3 shows.

Table 3

Reliability Estimates of the Pilot Study's Instruments (n = 9)

Scale	# of items	Cronbach's alpha
Job turnover[a]	5	0.96
Job burnout[b]	14	0.97
Physical exhaustion	6	0.97
Cognitive exhaustion	5	0.94
Emotional exhaustion	3	0.99

Note. [a]Job turnover intention ratings ranged from 1 = *strongly disagree* to 5 = *strongly agree*; [b]the SMBM and its subscales ranged from 1 = *never or almost never* to 7 = *always or almost always*

At least one respondent from each of the seven colleges of OSU participated in the pilot study. None of the properties of the TPI were confirmed from the pilot study because only one of the participants responded to that part of the survey questionnaire.

Validity

According to Anastasi (1986), any information that relates to the process of developing research data for use, is relevant to research validity. Moss (1992) emphasized the importance of three aspects of research validity. In relation to *construct* validity, job burnout for this study was defined based on Hobfoll's (1989) conservation of resources theory. According to the theory, physical, cognitive, and emotional energies were resources that were not only personally possessed, they were, like any other resource, valued. These three energies were used to theoretically and uniquely define the *construct* of job burnout. Therefore, in this study, interpretations of research data were based on subscales for physical, cognitive, and emotional exhaustion. The stability of the associations between the subscales was validated through research for 10 years with various occupational groups, including instructors (Melamed, Shirom, & Froom, 2003). The Shirom-Melamed burnout measure (SMBM) held potential for identifying professionals at risk of job burnout (Shirom & Melamed, 2006). The SMBM was also found to have superior theoretical fit for explaining job burnout if compared to the Maslach Burnout Inventory, which was an often used measure for job burnout (Shirom & Melamed, 2006).

Similarly, the teaching perspective inventory (TPI) was based on unique theorizations about *beliefs*, *intentions*, and *actions* as related to teaching. The buildup of these concepts into the *construct(s)* of teaching perspectives involved personal interviews with more than 250 research participants. The growth and development of these *constructs* from 1992 to 2000, which involved more than 100,000 respondents, refined and stabilized the inter-relationship between teaching beliefs, intentions, and actions (Pratt & Collins, 2011).

For data collection to enable the researcher to measure these constructs, *content* validity had to be ensured. The instruments chosen for data collection had items that were time-tested because they had been previously validated by other researchers including Pratt and Associates

(1998) for the TPI. The SMBM was validated by Shirom and Melamed (2006). In seeking permission to use their instruments, the researcher requested the co-authors of the SMBM and the TPI to share useful information relating to the use of their measures. Where changes to standard formatting were made, the researcher made relevant adjustments when field-testing the final questionnaire (Appendix J). The language level and concepts used with individual items on the questionnaire were not found to pose any problems for the participants. The order of presentation of the TPI items was maintained as required (Pratt & Associates, 1998).

According to Xu (2008), job turnover intention and retention of instructors depends on various factors, one of which was instructors' perceived levels of job burnout. Job turnover intention was the selected criterion variable of this study. And to establish *criterion validity* required the researcher to show that a direct or indirect association existed between the criterion variable and the variable of interest, i.e., teaching perspectives and job burnout (Moss, 1992). To this end, Kinman (2001) and Maslach and Leiter (1997) associated job burnout and job turnover intentions. As for internal validity, job burnout and teaching perspectives were latent constructs that were not measured directly and the study's internal validity was, therefore, not undermined (Creswell, 2012). Further, because the participants were treated as one and not two groups, non-randomization of participants for selection did not have an adverse effect on the study's internal validity. However, the study's 14.2% response rate may be considered low for the establishment of external validity because it restricts generalizability beyond the sample of study participants (Creswell, 2012).

The Study's Final Survey Questionnaire: Protocol, Response Rates, and Post-hoc Reliability Estimates

After IRB approval of the study's modified questionnaire was received (Appendix B), a final electronic version of the survey questionnaire was compiled by the researcher. The protocol

used when administering the final questionnaire was similar to the one used for the pilot study; a pre-notice (Appendix H) was sent on October 28, 2013 followed by the *invitation to participate* (Appendix I) on October 30, 2013. The one-time *Thank you/Reminder* electronic mail message was sent on November 6, 2013 after 117 participants had responded. This response increased to 206 two weeks after having sent out the first invitation. According to (Dillman, 2007), reminders have been known to increase response rates to survey questionnaires; the observed final response rate for this study may not have been realized without that.

Electronic mail surveys are associated with swifter response times according to Deggs (2005) and Dillman (2007), and a higher rate of response may be achieved than with postal mail surveys. The researcher expected participants to find the use of electronic mail survey questionnaires convenient because they had experience using this mode of correspondence (Shannon & Bradshaw, 2002). The total time for data collection was 14 days. All data collected were handled by the researcher who ensured access to the *Qualtrics*® account was password-protected at all times. Table 4 shows selected properties of the TPI, as derived from the study, which the researcher was not able to pre-test during the pilot study phase. Therefore, the reliability estimates were determined post-hoc.

Table 4

Reliability Estimates of all TPI Scales (N = 157)

Scale	# of items	Cronbach's alpha
Beliefs[a]	15	0.68
Intentions[b]	15	0.80
Actions[b]	15	0.81
Teaching perspective inventory (TPI)	45	0.90

Note. [a]Beliefs ratings ranged from 1 = *strongly disagree* to 5 = *strongly agree*; [b]Intentions and Actions ratings ranged from 1 = *never* to 5 = *always*

The reliability estimates of the job burnout scale, as determined post-hoc, are shown in Table 5.

Table 5

Reliability Estimates of the Job Burnout Scale (N =157)

Scale	# of items	Cronbach's alpha
Physical exhaustion	6	0.91
Cognitive exhaustion	5	0.95
Emotional exhaustion	3	0.90
Job burnout[a]	14	0.94

Note. [a]All burnout sub-scale ratings ranged from 1 = *never or almost never* to 7 = *always or almost always*

The job turnover intention scale, made up of five items representing a unidimensional construct, had an overall reliability estimate of 0.875.

Data Analysis

Data were first organized to facilitate the descriptions of findings in a systematic way. From the outset, 28 cases which involved potential participants who logged into the online study site but failed to complete any part of the survey questionnaire were deleted from analysis. The missing data in the remaining 178 cases was handled in two different ways. Pair-wise deletion was applied when analyzing descriptive data which pertained to instructors' professional and personal profiles such as gender, nationality, tenure status, highest degree, years of teaching experience in the United States, and other categorical variables. In each case, the valid number of cases used to calculate percentages, means, and standard deviations was stated.

When conducting analysis with inferential statistics, care was taken to prevent variations in the sample size which could affect the power of the tests as well as associated standard errors (Howel, 2007). For these kinds of analyses, cases with complete records of data were used to

conduct *t*-tests, regression, and related path analyses. Group attributes were compared using analysis of variance (ANOVA), and the determination of existing relationships between variables was based on zero-order correlation coefficients (Pattern, 2005; Steinberg, 2011). In addition, the *Qualtrics*® software from the OSU website www.okstatecasnr.qualtrics.com was used to code the survey questionnaire and was the initial software used to conduct the analysis of responses to individual items on the pilot study. IBM® SPSS® software version 21 and IBM® SPSS®AMOS were the computer applications software used at different stages of data analysis for the full study. These applications were especially useful when conducting analyses to test the model fit to the data based on underlying theory and related literature. The anchor points of the SMBM and the turnover intention scale were used to describe the participants' levels of perceived job burnout and job turnover intentions, respectively. When analyzing both descriptive and inferential statistics, figures and tables were also included to help communicate trends in the study's data (Kinner & Gray, 2010).

Summary of the Study's Methodology

Causal modeling, also known as *path analysis*, was the preferred research design in this study because it afforded the researcher details that made it possible to assess and describe connections among different classes of variables: input/output variables, exogenous/endogenous variables, and intervening/moderating variables (Maruyama, 1998). This design facilitated the description of participants' perceptions of their teaching *beliefs*, *intentions*, and *actions*; their physical, cognitive, and emotional exhaustion, as perceived job burnout; and, also their levels of job turnover intentions. The study targeted all of the instructors at OSU during the fall semester of 2013 (N = 1302; see Table 1). Data were collected from all the seven colleges involving 206 participants. One hundred and fifty-seven questionnaires were completed sufficiently and the responses were used for data analysis. This rendered a 12.1% overall response rate.

The OSU broadcast electronic mailing system was used to deliver the study's survey questionnaire to the prospective participants through an electronic mail message (see Appendix L and Appendix N). From its four sections, the survey questionnaire was designed to gather information on participants' teaching perspectives, perceived job burnout, job turnover intentions, and selected personal and professional characteristics. Three sections of the survey questionnaire included reliable and valid instruments. Section A of the questionnaire was the Shirom-Melamed Burnout Measure (SMBM); Section B was the measure of job turnover intention attributed to Walsh et al. (1985); and, Section C comprised the Teaching Perspective Inventory, as developed by Pratt and Collins (2003). The incorporation of each instrument was done with input from members of the researcher's graduate committee, outside experts, and by consulting relevant literature on each of the instruments. Sections A, B, and C are displayed in Appendix J. See Tables 3, 4, and 5 for the instruments' reliability estimates.

The online data collection process for the full study was conducted between October 28 and November 13, 2013. Data were analyzed using *Qualtrics*®, IBM® SPSS® software version 21, and IBM® SPSS®AMOS. Both descriptive and inferential statistics were applied in the data analysis based on modeling various theoretical possibilities in respect to the measured and latent variables of the study.

CHAPTER IV

FINDINGS

This chapter presents the study's findings based on data collected to answer seven research questions. The chapter is presented in the following 11 sections: (1) purpose of the study, (2) research questions of the study, (3) population of the study, (4) findings related to research question one, (5) findings related to research question two, (6) findings related to research question three, (7) findings related to research question four, (8) findings related to research question five, (9) findings related to research question six, (10) findings related to research question seven, and (11) summary of the study's findings .

Purpose

The multifold purpose of this study was to explore and describe associations between the instructors' scores of perceived job burnout, measures of dominant teaching perspectives as per the *Teaching Perspectives Inventory* (TPI), and their job turnover intentions. Further, the study also sought to describe the influence of participants' personal and professional characteristics on the associations between perceptions of job burnout and job turnover intentions of faculty members with teaching appointments at OSU during the fall semester of 2013.

Research Questions

Based on the literature reviewed, seven research questions guided the study:

1. What were selected personal and professional characteristics of the participants?

2. What were the participants' dominant teaching perspectives?

3. What levels of job burnout were reported by the participants?

4. What levels of job turnover intentions were reported by the participants?

5. Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?

6. Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?

7. Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?

Population and Sample

The target population ($N = 1302$) consisted of OSU instructors who taught one or more courses during the fall semester of 2013. The pilot study targeted 50 instructors leaving 1252 as the population for the main study. Of this number, 206 attempted the study's survey questionnaire, with 178 of them providing partially usable data. This was an effective response rate of 14.2%. However, only 157 completed the survey questionnaire sufficiently for the researcher to use their data for analysis, which was 12.1% of the target population.

Findings for Research Question One

Selected Personal and Professional Characteristics of the Participants

Among the 157 instructors who completed all parts of the survey questionnaire, 56.1% were male and 43.3% were female. The remainder, who comprised 0.6%, did not indicate their gender. Table 6 shows this finding as well as the participants' ages in years, nationalities, citizenship status, highest degree, their college affiliation, and tenure status. Per Table 6, 18 participants (11.5%) indicated an age range from 25 to 34 years, with M = 31.56 years and SD = 1.69. Another 36 participants (22.9%) were 35 to 44 years of age, M = 39.89 and SD = 2.62. The largest cluster of participants (42, 26.8%) indicated ages ranging from 45 to 54 years; the associated mean and standard deviation were 50.26 years and 2.41, respectively. Another cluster of participants' ages ranged from 55 to 64 years and included 35 participants (22.3%) whose mean age was 58.57 years with a standard deviation of 2.34. The oldest group of participants reported ages ranging from 65 to 85 years. Sixteen participants (10.2%) belonged to this group whose mean and standard deviation were M = 67.44 and SD = 3.22, respectively. Ten participants (6.4%) did not indicate their ages.

Nearly all of the participants, 96.2%, were U. S. citizens as compared to 3.2% non-citizens (see Table 6). Further, 87.9% of participating U. S. citizens were native born and 3.2% were naturalized; 1.3% were permanent residents. A large proportion of participants held doctorate degrees, i.e., 84.7%; 11.5% of the participants indicated their highest educational attainment was a Master's degree; and 1.9% held only a Bachelor's degree. Two or 1.3% of the participants had an alternative professional qualification. Table 6 also indicates the college affiliations of the participants and their tenure status at the time of the study. Each of OSU's seven colleges produced respondents to the survey questionnaire with the majority of participants, i.e., 44.6%, from the College of Arts and Sciences. The other colleges providing participants were 14.6% from the College of Agricultural Sciences and Natural Resources (CASNR); 8.9% from

the College of Education and the College of Human Sciences (CoHS), respectively; 10.8% from the Spears School of Business; 7.0% from the College of Engineering Architecture and Technology (CEAT); and, 3.8% from the College of Veterinary Medicine. A majority, i.e., 51.0%, of the participants included tenured instructors, 21.0% were on a tenure track but untenured, and 24.8% were not on a tenure track.

Table 6

Participants' Selected Personal and Professional Characteristics (N =157)

Characteristics	*f*	*%*	*M*	*SD*
Gender				
Male	88	56.1	-	-
Female	68	43.3	-	-
Missing	1	0.6	-	-
Age in years				
25 to 34	18	11.5	31.56	1.69
35 to 44	36	22.9	39.89	2.62
45 to 54	42	26.8	50.26	2.41
55 to 64	35	22.3	58.57	2.34
65 to 85	16	10.2	67.44	3.22
Missing	10	6.4	-	-
Nationality				
U.S. citizen	151	96.2	-	-
Non-citizen	5	3.2	-	-
Missing	1	0.6	-	-
Citizenship				
Native born	138	87.9	-	-
Naturalized	5	3.2	-	-
Permanent residents	2	1.3	-	-

Table 6 (continued)

Participants' Selected Personal and Professional Characteristics (N =157)

Characteristics	*f*	%	*M*	*SD*
Other	1	0.6	-	-
Missing	11	7.0	-	-
Highest degree held				
Doctorate	133	84.7	-	-
Master's	18	11.5	-	-
Bachelor's	3	1.9	-	-
Other	2	1.3	-	-
Missing	1	0.6	-	-
College affiliation				
Arts & Sciences	70	44.6	-	-
CASNR	23	14.6	-	-
College of Education	14	8.9	-	-
CoHS	14	8.9	-	-
Spears School of Business	17	10.8	-	-
CEAT	11	7.0	-	-
College of Veterinary Medicine	6	3.8	-	-
Missing	2	1.3	-	-
Tenure status				
Tenured	80	51.0	-	-
Tenure track	33	21.0	-	-
Not on tenure track	39	24.8	-	-
Other/missing	5	3.1	-	-

Note. For an illustration of the influence of selected personal characteristics on participants' perceptions of job burnout and job turnover intentions, see Appendices T and U, respectively.

Table 7 shows more characteristics of the participants, including their years of teaching experience at the university level and types of courses they taught, categorized as belonging to the *science, technology, engineering, and math* (STEM) cluster or non-STEM. The *science, technology, engineering, and math* (STEM) cluster and non-STEM classification of courses was based on the U.S. Department of Homeland Security criteria. A list of recognized STEM courses is included as Appendix P. Table 7 also shows the number of pedagogy/andragogy courses participants had taken, and participants' percentage appointments for teaching, research, and outreach or service.

Three participants (1.8%) did not indicate for how long they had taught at the university level in the United States. Another 21 participants (13.4%) indicated they had less than five years of university teaching experience, $M = 2.38$ and $SD = 0.97$. Fifty-eight participants (36.9%) indicated their teaching experience ranged from 5 to 14 years; their mean years of teaching in the United States and associated standard deviation were $M = 9.19$ and $SD = 3.31$, respectively. Those who had taught from 15 to 24 years were 37 participants (23.6%). As a group, their mean was 19.11 years with a standard deviation of 3.13. Twenty one participants (13.4%) indicated their teaching experience ranged from 25 to 34 years. The associated mean number of years of teaching and standard deviation were 28.67 and 2.90, respectively. Fifteen participants (9.0%) had years of teaching experience that ranged from 35 to 44 years. The group's mean and standard deviation were 38.27 years and 3.41, respectively. Two participants, (1.3%) reported having taught exactly 45 years each ($M = 45.00$ years, $SD = 0.00$).

The proportion of participants who taught STEM courses was 33.8%; this was smaller than 47.8%, i.e., the proportion of those who taught non-STEM courses (see Table 7). About one-half of the participants (49.7%) had never taken a pedagogy/andragogy course. Participants who had taken one such course comprised 16.6% of the respondents; 9.6% had taken two such

courses; 5.1% had take three courses, and 17.2% reported having taken four or more pedagogy/andragogy courses.

Twenty participants, representing 12.7% of the respondents, did not indicate the percentage of their teaching appointment (see Table 7). Five (3.2% of respondents) indicated their teaching appointment was less than 20%, *M* = 14.00 and *SD* = 2.24. Twenty three participants (14.6%) had teaching responsibilities that comprised 20% to 39% of their appointments, *M* = 27.78 and *SD* = 4.59. The range from 40% to 59% of teaching appointments had the most participants; they were 53 (33.8%) with a mean appointment of 46.89% and *SD* = 4.30. Twenty-nine participants (18.5%) were within the 60% to 79% range of teaching appointment, *M* = 70.17 and *SD* = 6.19. Twenty seven participants (17.2%) had teaching appointments ranging from 80% to 100%. Their mean teaching appointment was 94.07% with a standard deviation of 8.99.

In comparison, 10 participants (6.4%) had research appointments of less than 20%, *M* = 11.00 and *SD* = 2.11 (see Table 7). Another 36 participants (22.9%) had research appointments from 20% to 39%, *M* = 27.56 and *SD* = 4.42. The modal group of 46 participants (29.3%) had research appointments ranging from 40% to 59%. The group's mean research appointment and standard deviation were 46.52% and 4.46, respectively. In the 60% to 79% range of research appointment were 10 participants (6.4%) with a mean of 68.00% and standard deviation of 6.75. Only four participants (2.5%) had research appointments of more than 80%. The mean percentage research appointment for this group was 87.50% with a standard deviation of 8.66. Fifty-one participants, i.e., 32.5% of the respondents, did not indicate a percentage of their appointment was research.

Seventy-two participants (45.9%) did not indicate a percentage of their appointment included outreach (see Table 7); this represented a university function in which the highest proportion of faculty was not involved. Among those who had outreach appointments, 47

participants (29.9%) had appointments with less than 20% outreach (*M* =10.43, *SD* = 1.75). Twenty-three participants or 14.6% held outreach appointments ranging from 20% to 39%. The group's mean was 24.39% with a standard deviation of 4.37. Eight participants (5.1%) had outreach appointments in the range of 40% to 59%. The mean percentage outreach appointment for the group was 43.13% with a standard deviation of 15.80. The higher range from 60% to 79% had only six participants (3.6%) who had outreach appointments with a mean and standard deviation of 65.33% and 13.81, respectively. One participant (0.6%) had an appointment that included 90% time devoted to outreach.

Table 7

Participants' Selected Professional Characteristics Related to Teaching and Their Appointments (N = 157)

Characteristics	*f*	%	*M*	*SD*
Years of teaching experience at the university level				
Less than 5	21	13.4	2.38	0.97
5 to 14	58	36.9	9.19	3.31
15 to 24	37	23.6	19.11	3.13
25 to 34	21	13.4	28.67	2.90
35 to 44	15	9.0	38.27	3.41
45 to 54	2	1.3	45.00	0.00

Table 7 (continued)

Participants' Selected Professional Characteristics Related to Teaching and Their Appointments (N = 157)

Characteristics	*f*	*%*	*M*	*SD*
Missing	3	1.8	-	-
Type of courses taught				
STEM[a] courses	53	33.8	-	-
Non-STEM courses	75	47.8	-	-
Missing	29	18.5	-	-
Courses taken in pedagogy/andragogy				
None	78	49.7	-	-
1	26	16.6	-	-
2	15	9.6	-	-
3	8	5.1	-	-
4 or more	27	17.2	-	-
Teaching appointment (%)				
Less than 20	5	3.2	14.00	2.24
20 to 39	23	14.6	27.78	4.59
40 to 59	53	33.8	46.89	4.30
60 to 79	29	18.5	70.17	6.19
80 to 100	27	17.2	94.07	8.99
Missing	20	12.7	-	-

Table 7 (continued)

Participants' Selected Professional Characteristics Related to Teaching and Their Appointments (N = 157)

Characteristics	*f*	*%*	*M*	*SD*
Research appointment (%)				
Less than 20	10	6.4	11.00	2.11
20 to 39	36	22.9	27.56	4.42
40 to 59	46	29.3	46.52	4.46
60 to79	10	6.4	68.00	6.75
80 to 100	4	2.5	87.50	8.66
Missing	51	32.5	-	-
Outreach appointment (%)				
Less than 20	47	29.9	10.43	1.75
20 to 39	23	14.6	24.39	4.37
40 to 59	8	5.1	43.13	15.80
60 to 79	6	3.6	65.33	13.81
80 to 100	1	0.6	90.00	0.00
Missing	72	45.9	-	-
Missing	3	1.9	-	-

Note. [a]*STEM* refers to science, technology, engineering, and math courses as determined by the U.S. Department of Homeland Security (see Appendix P). For an illustration of the influence of selected professional characteristics on participants' perceptions of job burnout and job turnover intentions, see Appendices T and U, respectively.

When the number of instructors who taught courses from level 1000 to level 4000 were grouped according to student enrollment in their courses (see Table 8), it was found that 42 instructors, i.e., 26.8% of the study's participants, did not teach undergraduate courses. From the group of instructors who taught undergraduate courses, the overall mean enrollment in undergraduate courses per instructor was 101.90, with a standard deviation of 136.10. However, data points beyond three standard deviations were considered outliers, i.e., instructor enrollments greater than 511for undergraduate courses, and were dropped from analysis for this research question. As a consequence, one participant who had a total enrollment of 1200 students was excluded from analysis. As expected, the increase in the number of students in courses taught was reflected in the mean values across the quartiles. However, the standard deviation of total student enrollments from 116 to 511 undergraduate students for one instructor was disproportionately larger than expected.

The first 29 of the remaining 112 instructors, representing 18.5% of the total participants, taught undergraduate courses in which the enrollment ranged from four (minimum) to 41 students. The next 29 participants (18.5%) taught courses in which the enrollment ranged from 42 to 65 students. The next 29 instructors (18.5%) taught courses in which enrollment ranged from 66 to 115 students. Twenty seven participants (17.2%) reported teaching undergraduate courses with enrollments ranging from 116 to 511 students. Similarly, 89 participants, representing 56.7% of the total respondents, did not teach courses that were of level 5000 or higher, i.e., graduate level courses. After their exclusion, the mean enrollment in courses of level 5000 or higher, was 27.15 with an associated standard deviation of 38.29. Using this statistic, outliers were defined as instructors who reported enrollments larger than 143 students. As a result, instructors who reported enrollments of 180 and 224, respectively, were dropped from the analysis; therefore, 66 participants were grouped according to their enrollments for courses of level 5000 or higher. Table 8 shows that increases in enrollment did not lead to large changes in the corresponding

standard deviations except for the group having enrollments between 29 and 100 graduate students per instructor.

Table 8

Types of Courses Taught by the Participants and Student Enrollments in Their Courses

Quartile	Range	*f*	*%*	*M*	*SD*
Number of students taught in course levels 1000 to 4000					
First 25%	4 to 41	29	18.5	24.52	10.70
Second 25%	42 to 65	29	18.5	52.69	7.58
Third 25%	66 to 115	29	18.5	83.89	14.18
Fourth 25%	116 to 511	27	17.2	211.79	106.75
Did not teach undergraduates		42	26.8	-	-
Outliers		1	0.6	-	-
Number of students taught in courses of level or higher					
First 25%	1 to 6	17	10.8	3.41	1.87
Second 25%	7 to 15	22	14.0	11.32	3.32
Third 25%	16 to 28	11	7.0	19.91	3.36
Fourth 25%	29 to 100	16	10.2	57.25	19.26
Did not teach graduate students		89	56.7	-	-
Outliers		2	1.3	-	-

Table 9 summarizes the work load of the participants in terms of the number of undergraduate and graduate courses they taught. Although 19.1% of the respondents did not teach any undergraduate students in face-to-face courses, 84.7% did not teach any online undergraduate

course. Conversely, 42.0% of the respondents did not teach any face-to-face graduate courses, and 79.0% of the participants did not teach any graduate online courses either. More than one-half (54.8%) of those who taught face-to-face undergraduate courses taught one or two; 14.0% taught three courses, and 6.4% taught four or more courses. On the other hand, 44.6% of respondents taught one or two face-to-face graduate courses. Those instructors who taught three or more face-to-face graduate courses constituted 1.2% of the total respondents. Similarly, 8.9% of respondents only taught online graduate courses.

Table 9

Summary of Courses Taught by the Participants (N = 157)

Number of Courses	Undergraduate Courses[a]		Undergraduate Online Courses		Graduate Courses[b]		Graduate Online Courses	
	f	%	*f*	%	*f*	%	*f*	%
None	30	19.1	133	84.7	66	42.0	124	79.0
1	51	32.5	11	7.0	51	32.5	11	7.0
2	35	22.3	2	1.3	19	12.1	3	1.9
3	22	14.0	-	-	1	0.6	-	-
	10	6.4	-	-	1	0.6	-	-
N/A[c]	9	5.7	11	7.0	19	12.1	19	12.1

Note. [a]*Undergraduate courses* refers to all courses of level 1000 to 4000. [b]*Graduate courses* refers to courses of level 5000 or higher.

[c]*N/A*- refers to undergraduate or graduate courses needed to account for all courses.

Findings for Research Question Two

Participants' Dominant Teaching Perspectives

Based on the distribution of participants' teaching beliefs, intentions, and actions, *social reform* was not the dominant perspective for any of the participants. As illustrated in Figure 2, two participants or 1.3% held three dominant perspectives. Another 21 participants (13.4%) had

two dominant teaching perspectives, and the remaining 134 participants (85.3%) had a single dominant teaching perspective.

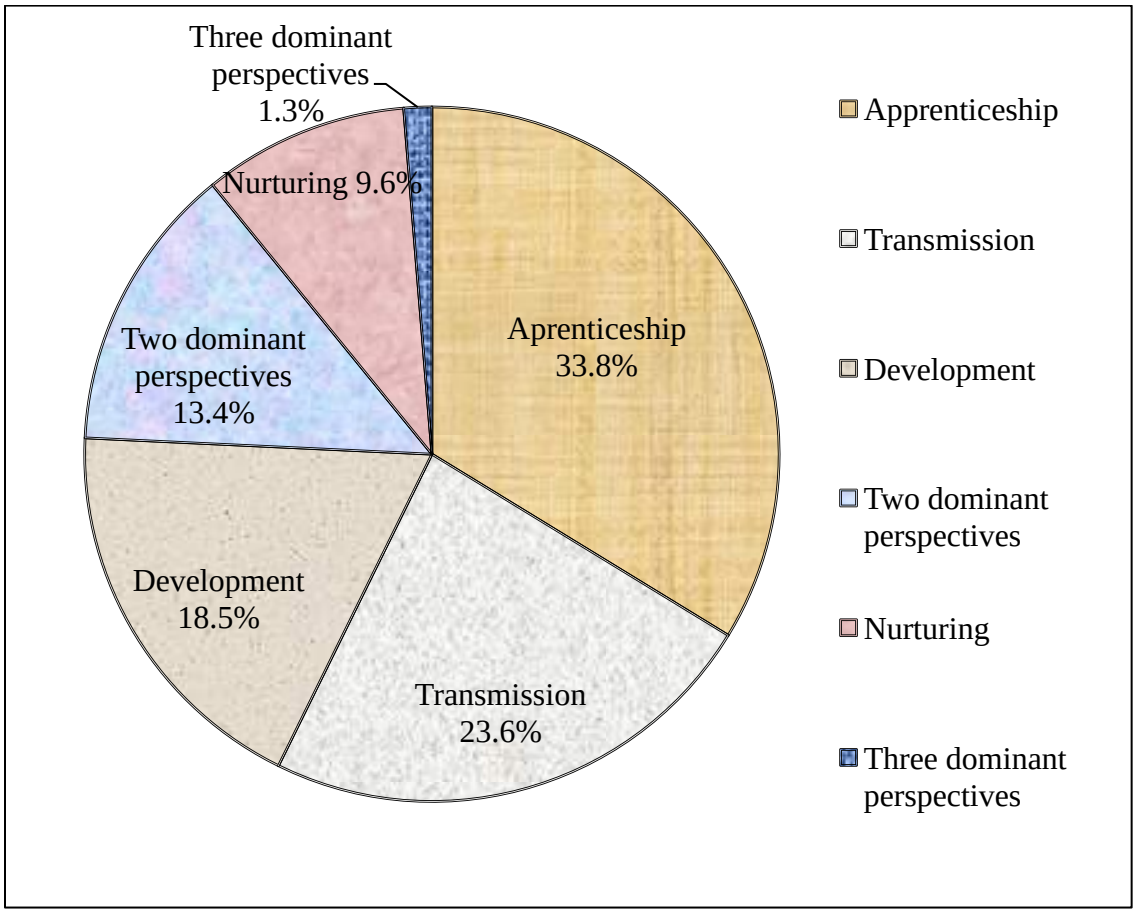

Figure 2. The proportion (%) of participants' dominant teaching perspectives (N = 157)

Apprenticeship was the most prevalent dominant teaching perspective, as it was shared by 53 participants (33.8%). It was followed by *transmission* with 37 participants (23.6%); *development* was held by 29 participants (18.5%); and, the *nurturing* teaching perspective was held by 15 participants or 9.6% of the respondents (see Figure 1). Table 10 highlights the differences by gender of adherents to the different dominant teaching perspectives.

Adherents to *apprenticeship* were about evenly divided as to their gender, i.e., 53.8% were male and 46.2% were female (see Table 10). However, more male (62.2%) than female

(37.8%) participants held *transmission* as their dominant teaching perspective. A similar trend was apparent among participants who held *development* as their dominant teaching perspective. For every one female who held *development* as her dominant perspective, more than two males held that perspective; the proportion of males (69.0%) was more than double that of females (31.0%). On the contrary, more female (73.3%) than male (26.7%) respondents were found to hold *nurturing* as their dominant teaching perspective.

Table 10

Dominant Teaching Perspectives by Gender

Gender	Apprenticeship		Transmission		Development		Nurturing	
	f	%	*f*	%	*f*	%	*f*	%
Male	28	53.8	23	62.2	20	69.0	4	26.7
Female	24	46.2	14	37.8	9	31.0	11	73.3
Total	52	100.0	37	100.0	29	100.0	15	100.0

An alternative way to define dominant teaching perspectives other than by comparing the magnitudes of a participants' perspective scores involved the creation of *some distance removed from a respondent's other scores* (Collins & Pratt, 2011). For each participant, the mean score for his or her dominant perspective is compared with the means of his or her other scores to determine whether the dominant perspective mean is a distance of at least one standard deviation higher than the other perspective means (Collins & Pratt, 2011). Under this definition, the question asked was, "for which participants was a given perspective dominant?" Participants could hold more than one dominant teaching perspective.

By this approach, *apprenticeship* was the dominant perspective for 70 participants; *development* was the dominant teaching perspective for 55 participants; *transmission* was the dominant teaching perspective for 53 participants; *nurturing* was the dominant perspective for 22 participants; and, *social reform* was the dominant teaching perspective for one participant. Further, nine participants (5.7%) did not have a dominant teaching perspective; 95 participants (60.5%) had one dominant perspective each; and, two perspectives were dominant for each of 53 other participants, i.e., 33.8% (see Figure 3).

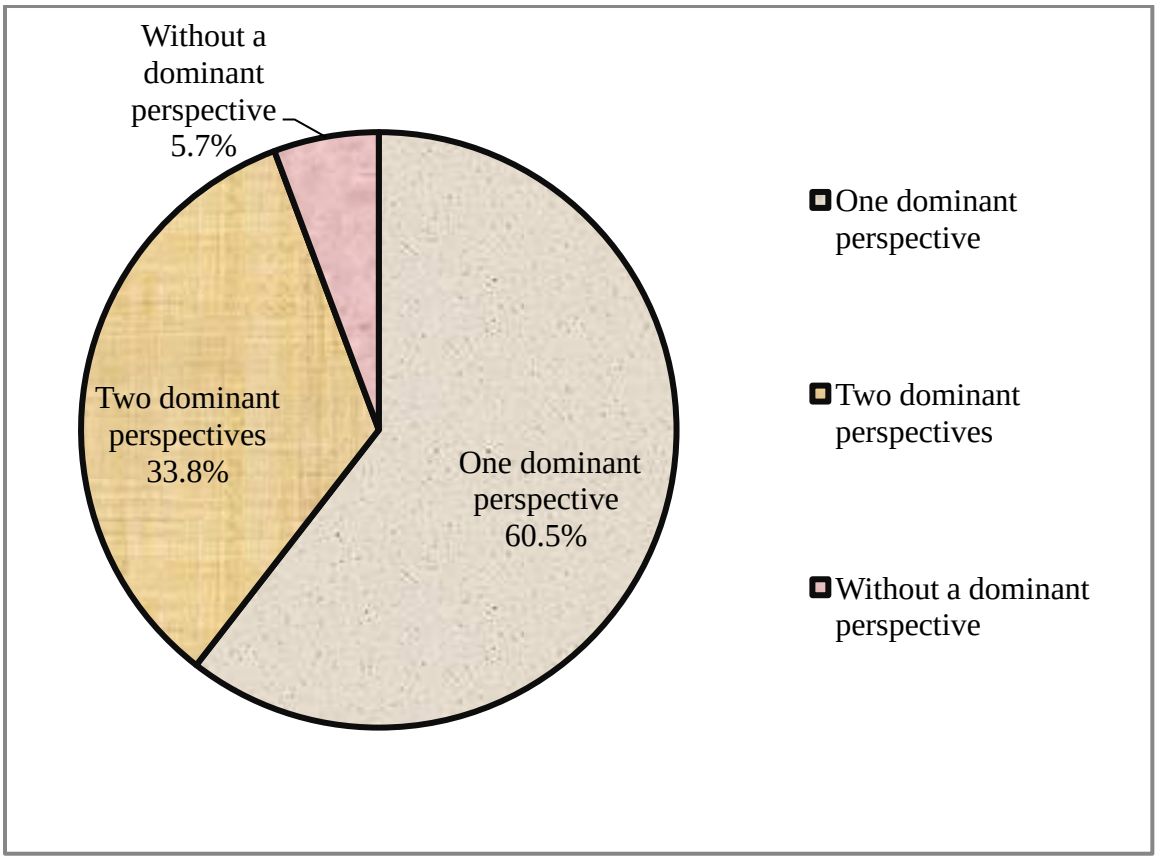

Figure 3. The proportion (%) of participants' for whom none, one, or two teaching perspectives were dominant (N = 157)

Table 11 shows the distribution of dominant teaching perspectives by participants' college affiliations. In the College of Arts and Sciences, 36 participants (22.9%) had *development* as their dominant teaching perspective; 25 (15.9%) had *apprenticeship* as their dominant teaching perspective; and, 23 participants (14.6%) held *transmission* as their dominant teaching perspective. Eleven participants (7.0%) held *nurturing* as their dominant perspective. In comparison, 11 participants (7.0%) from CASNR held *apprenticeship* as their dominant teaching perspective; and, eight participants (5.1%) held *transmission* as their dominant teaching perspective. *Nurturing* with three (1.9%) and *development* with two (1.3%) were the other dominant teaching perspectives for participants from CASNR.

The College of Education participants equally held either *apprenticeship* or *nurturing* as dominant teaching perspectives with five participants (3.2%) for each. Two participants (1.3%) held *development* as their dominant teaching perspective and one individual (0.6%) had *transmission* as his or her dominant teaching perspective (see Table 11). *Apprenticeship* with eight participants (5.1%), followed by six holders of *development* (3.8%), were the top two teaching perspectives in the CoHS. *Transmission* was the third dominant teaching perspective with three participants (1.9%), and one participant (0.6%) held *nurturing* as his or her dominant teaching perspective in CoHS.

The Spears School of Business provided participants who held each of the dominant perspectives, including *social reform* (see Table 11). *Apprenticeship* was the most frequent dominant teaching perspective with 11 participants (7.0%); next was *transmission* which was held by eight (5.1%) of the participants. Another five participants of the college, i.e., 3.2%, held *development* as their dominant teaching perspective. Both *nurturing* and *social reform*, as dominant teaching perspectives, were each held by one participant (0.6%). CEAT did not provide any participants who held *nurturing* or *social reform* as dominant teaching perspectives. Instead, *transmission* and *apprenticeship* were held as dominant teaching perspectives by six participants

(3.8%) each. Three participants (1.9%) from the college held *development* as their dominant teaching perspective. The College of Veterinary Medicine had three participants (1.9%) who held *transmission* and the same number who held *apprenticeship* as their dominant teaching perspectives. One participant (0.6%) held *development* and another held *nurturing* as their dominant teaching perspectives (see Table 11).

Table 11

The Distribution of Participants' Dominant Teaching Perspectives by Colleges

	Transmission	Apprenticeship	Development	Nurturing	Social reform
Arts & Sci[a]	23	25	36	11	0
CASNR[b]	8	11	2	3	0
CoE[c]	1	5	2	5	0
CoHS[d]	3	8	6	1	0
SSB[e]	8	11	5	1	1
CEAT[f]	6	6	3	0	0
VETMED[g]	3	3	1	1	0
Missing	-	1	1	-	-
Total[h]	52	70	56	22	1

Note. [a]Arts & Sciences; [b]College of Agricultural Sciences and Natural Resources; [c]College of Education; [d]College of Human Sciences; [e]Spears School of Business; [f]College of Engineering Architecture and Technology; [g]College of Veterinary Medicine. [h]The total exceeds $N = 157$ because some participants held more than one dominant teaching perspective.

Findings for Research Question Three

Participants' Levels of Perceived Job Burnout

Participants' perceptions of job burnout are first presented based on all 14 items of the SMBM (Appendix C). Table 12 provides a summary of the participants' perceptions of physical, cognitive, and emotional exhaustion. The physical exhaustion subscale had the highest mean score (M = 3.25, SD = 1.31). It was followed by the cognitive exhaustion mean score of M = 2.93, SD = 1.29. Emotional exhaustion with M = 2.47, SD = 1.25 was the subscale with the lowest mean score and smallest associated standard deviation. The only item of the physical exhaustion subscale with a mean score higher than the approximate midpoint of the scale (4 = *sometimes*) was the first item. The participants' mean and standard deviation on the statement, *I feel tired*, was M = 4.25, SD = 1.48. *I feel physically drained* was another statement for which participants had a comparatively high mean score (M = 3.47, SD =1.57). Other than these two statements, responses to the remainder of the items of the SMBM had mean scores that barely exceeded 3.00 or were less. This meant that participants *somewhat infrequently* or *very infrequently* or *never* experienced the situations described in 12 of the 14 questionnaire items from the SMBM. On average, however, all three subscales had mean scores of about 3.00, which indicated *somewhat infrequent* experiencing of the situations expressed by the items intended to describe the participants' perceptions of job burnout (see Table 12). The overall mean score for job burnout was M = 2.38 (SD = 1.34), which indicated the participants' perceived job burnout *very infrequently* as a group.

Table 12

Participants' Perceptions of Physical, Cognitive, and Emotional Exhaustion as Indicators of Job Burnout

Components	Questionnaire items	*f*	*M*	*SD*
Physical exhaustion (6 items)	I feel tired	156	4.25	1.48
		157	2.80	1.51
	I have no energy for work in the morning			
	I feel physically drained	157	3.47	1.57
	I feel fed up	156	3.06	1.64
	I feel like my "batteries" are "dead"	157	2.96	1.53
	I feel burned out	157	2.85	1.65
	Subscale	154	3.25	1.31
Cognitive exhaustion (5 items)	My thinking process is slow	157	2.96	1.44
	I have difficulty concentrating	157	3.02	1.43
	I feel I'm not thinking clearly	157	2.86	1.38
	I feel I am not focused in my thinking	156	3.00	1.39
	I have difficulty thinking about complex things	156	2.79	1.39
	Subscale	154	2.93	1.29
Emotional exhaustion (3 items)	I feel I'm unable to be sensitive to the needs of my colleagues and students	157	2.45	1.29
		157	2.57	1.48
	I feel I'm not capable of investing emotionally in my colleagues and students			
		156	2.37	1.34
	I feel I am not capable of being sympathetic to my colleagues and students			

Table 12 (continued)

Participants' Perceptions of Physical, Cognitive, and Emotional Exhaustion as Indicators of Job Burnout

	Scale	155	2.47	1.25
Job burnout	Overall	152	2.38	1.34

Note. SMBM scales ranged from 1 = *never* or *almost never* to 7 = *always* or *almost always*

The participants' levels of perceived job burnout, based on the subscales' seven-point anchors, were distinguished by the following real limits for total scores on the 14 items. The minimum and maximum values of the summed scores were 15 and 93, respectively. Score sums less than 20.99 correspond to participants who *never or almost never* (anchor point "1") experienced job burnout as measured by the SMBM items. Participants who experienced job burnout *very infrequently* (anchor point "2") were defined by score sums from 21.00 to 34.99. Participants who experienced job burnout *somewhat infrequently* (anchor point "3") had score sums ranging from 35.00 to 48.99; score sums from 49.00 to 62.99 were those participants who experienced job burnout *sometimes* which corresponded to anchor point "4." *Somewhat frequently* experienced job burnout was based on score sums ranging from 63.00 to 76.99 for anchor point "5." Higher anchor points included the following real limits: Anchor point "6" with score sums ranging from 77.00 to 90.99, which represented *very frequently* experienced job burnout; and, finally, anchor point "7" for participants who experienced job burnout *always* or *almost always* had limits that ranged from 91.00 to 98.00.

About 40% of the research participants, i.e., 61 respondents, *never* or *very infrequently* experienced job burnout (see Figure 4). A total of 73 or 48.0% of the participants experienced job burnout either *somewhat infrequently* or *sometimes*. About 12% of the participants (18 respondents) experienced job burnout *always*, *very frequently*, or *somewhat frequently*.

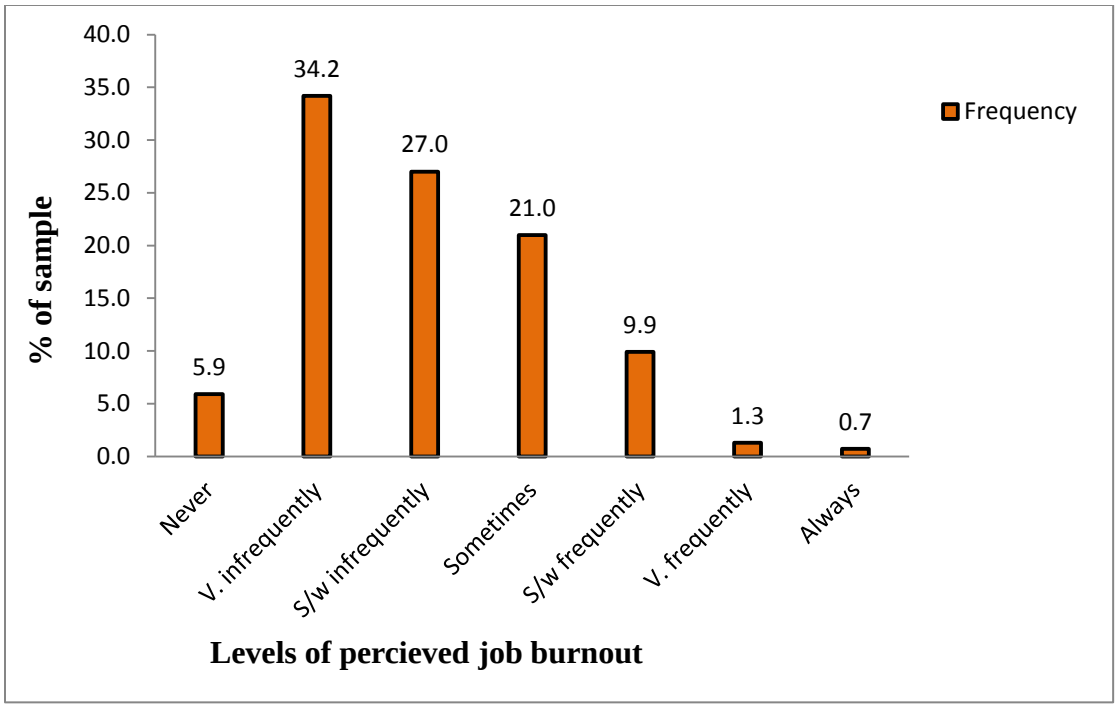

Figure 4. Participants' perceptions of job burnout by group (N = 152)

Findings for Research Question Four

Participants' Levels of Job Turnover Intention

The participants' perceived job turnover intentions are first presented based on the five items of the job turnover intention scale (Walsh et al., 1985). Participants' job turnover intentions are then presented as their percentage of agreement/disagreement on the five scale anchors or levels, i.e., from *strongly disagree* to *strongly agree*. The participants' overall mean score for job turnover intention was 2.15 (SD = 1.00) or slightly above the scale anchor *disagree* (see Table 13). This finding was similar to the mean and standard deviation (M = 2.23, SD = 0.90) of the norm group that Walsh et al. (1985) investigated using the same instrument.

On average, participants *disagreed* with the five statements that made up the job turnover scale. Item 5 had the lowest mean (M = 1.71, SD = 0.99). The fourth and first items of the scale, M = 2.43 (SD = 1.38) and M = 2.39 (SD = 1.32), respectively, had the highest mean scores. Because of the context-dependent nature of job turnover intentions, overall mean scores may not

provide all the details; therefore, to further explore the participants' perceived job turnover intentions, the researcher also described specific groups (see Figure 4).

Table 13

Participants' Perceptions of Their Job Turnover Intention

Item	Statement	*f*	*M*	*SD*
1	I am starting to ask my friends/contacts about other job possibilities	157	2.39	1.32
2	I am thinking about quitting my job	157	2.24	1.26
3	I intend to leave this section or department or university in the next year	157	2.01	1.17
4	I often look to see if positions with other sections or departments or employers are open	157	2.43	1.38
5	I am thinking of contacting a recruiter about other job possibilities	156	1.71	0.99
	Overall scale	156	2.15	1.00

Note. Job turnover intention ratings ranged from 1 = *strongly disagree* to 5 = *strongly agree*

A total of 57, i.e., 36.5% of the participants, were of the *strongly disagree* opinion regarding items of the job turnover scale (see Figure 5). Another 44 participants or 28.2% held *disagree* opinions, and 39 others (25%) had neutral opinions regarding their job turnover intentions. Nine percent or 14 participants expressed *agreement*, and two (1.3%) *strongly agree* regarding their job turnover intentions (see Figure 5).

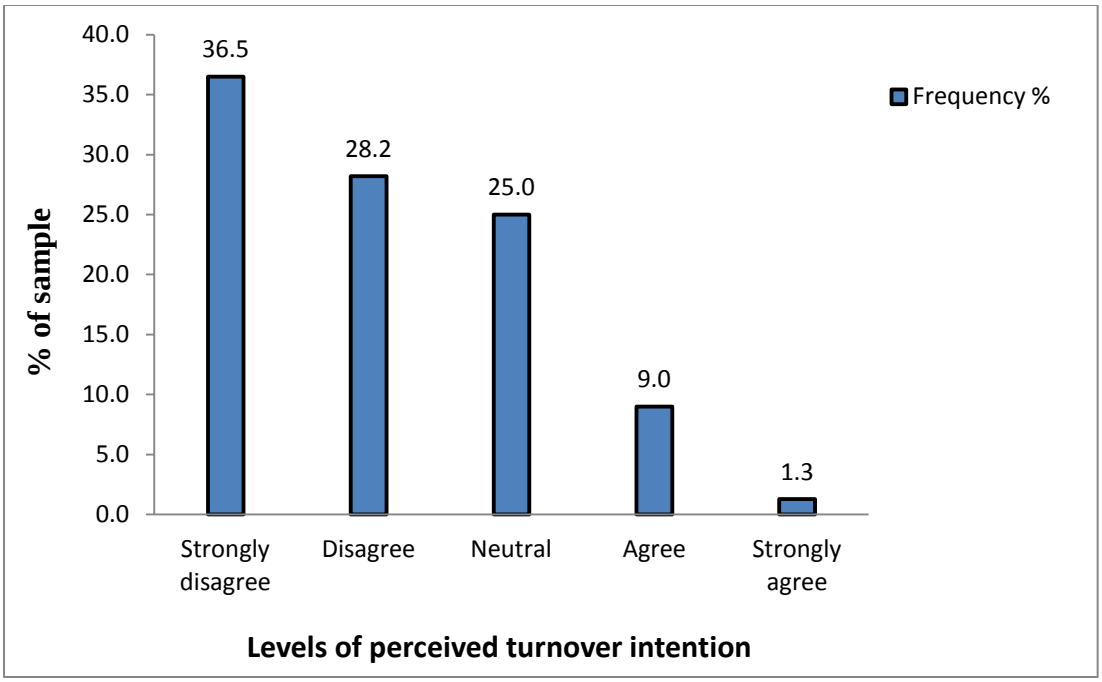

Figure 5. Participants' perceptions of job turnover intention by group (N = 156)

The real limits for the summated job turnover intention scale were used to create five levels of participants' perceived job turnover intentions. If a participant's sum of scores from the five items of the scale was less than 7.49, the participant was labeled *strongly disagree*; sums of scores ranging from 7.50 to 12.49 placed those participants in the *disagree* category. Other categories were the *neutral* group with scores ranging from 12.50 to 17.49 and the *agree* and *strongly agree* groups with sums of scores ranging from 17.50 to 22.49 and more than 22.50, respectively. The range of score sums was from 5 to 24 with a possible maximum sum of 25.

Findings for Research Question Five

Relationships between Participants' Teaching Perspectives and Their Job Turnover Intentions

Table 14 shows the Pearson product moment bivariate correlations (r) between teaching perspectives and participants' job turnover intentions. Given the ordinal measurement level of the data collected to answer this research question, Spearman's rho (ρ) correlations were also determined and are reported as Appendix Q. The bivariate associations between individual

teaching perspectives and job turnover intentions were all *negligible*, i.e., .01 (Davis, 1971). By magnitude, the association between *development* and job turnover intentions was the highest (r = .09), and no association existed between *social reform* and job turnover intention, r = .00 (see Table 14).

Table 14

The Relationships between Participants' Teaching Perspectives and Their Job Turnover Intentions (N = 157)

Teaching Perspective	Job Turnover Intention
Transmission	-0.03
Apprenticeship	0.03
Development	0.09
Nurturing	0.02
Social reform	0.00

Findings for Research Question Six

Relationships between the Participants' Perceptions of Job Burnout and Their Job Turnover Intentions

Associations between participants' perceived job burnout and job turnover intentions were estimated using both Pearson's r and Spearman's rho (ρ) correlation coefficients (the latter appearing as Appendix Q). All three components of job burnout were significantly associated (p < .05) with one another, with job burnout overall, and with the participants' job turnover intentions (see Table 15). The associations of individual burnout components with job turnover intentions were also similar, i.e., . Table 16 also shows that the association between participants' total job burnout scores and job turnover intentions was *substantial* (Davis, 1971), r = .52, and statistically significant (p < .05).

Table 15

The Relationships between the Participants' Perceptions of Job Burnout and Their Job Turnover Intentions (N = 157)

Measures of Job Burnout	Job Turnover Intention
Physical exhaustion	0.35*
Cognitive exhaustion	0.36*
Emotional exhaustion	0.37*
Job burnout (Overall)	0.52*

Note. *Pearson *r* correlations were significant at the 0.05 level

Findings for Research Question Seven

Participants' Perceptions of Job Burnout as a Mediator Variable

According to Zhao, Lynch, and Chen (2010), "the one and only requirement to demonstrate mediation is a significant indirect effect *a* x *b* by a Sobel test, or by a superior bootstrap test" (p. 200) (see Figure 6). Zhao et al. (2010) argued against the need for significant zero-order correlations between the input and the criterion variables to establish mediation. The input variables for this study were teaching *beliefs*, *intentions*, and *actions* – jointly as a proxy for *teaching perspective*. The mediator variable was participants' *job burnout* and the criterion variable was their *job turnover intentions*.

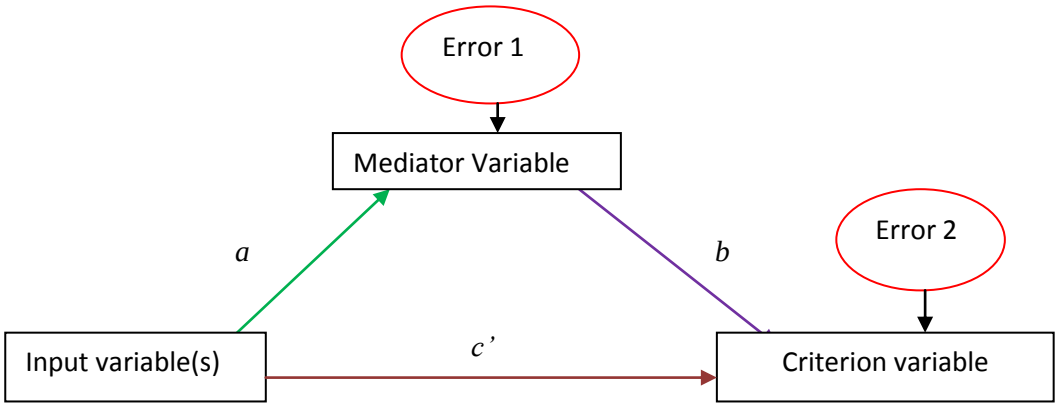

Figure 6. Depicting mediation using a path diagram

The hypothesized model made use of two regression equations based on path coefficients that were indicators of the *effects* of the teaching perspectives on participants' turnover intentions. From Figure 6, path *c*' represented the direct effect; path *a* x *b* represented the indirect effect; and, (*a* x *b*) + *c*' = *c* was the total effect.

The path *a* x *b* from the input variable(s) through the mediator to the criterion was compared with the direct path *c'* and the discrepancy between these models was tested as the difference between one correlation, i.e., path coefficient for path *c*', and the product of the other two coefficients for path *a* x *b* (Maruyama, 1998). The goal of conducting path analysis was to explain how well the hypothesized model, with participants' job burnout score as the mediator, fit the research data.

Figure 7 presents the relationships between the variables of the study using path coefficients. Associations between the input variables - *teaching beliefs*, *intentions*, and *actions* - constituted unanalyzed effects because the model did not assign *causal* effect to them (Maruyama, 1998). The associations between the input variables were treated as given prior associations that could not be decomposed (Pedhazur, 1997). Two kinds of *causal* associations were found. *Direct effects* included path coefficients from individual exogenous variables to job

burnout; and again from individual exogenous variables, including from job burnout to job turnover intention (see Figure 7). *Indirect effects* involve *causal* and output variables with a transmitter/mediator variable in between. Therefore, *indirect* or mediated effects included each of the paths from *teaching beliefs*, *intentions*, and *actions* to *job turnover intention* through *job burnout*.

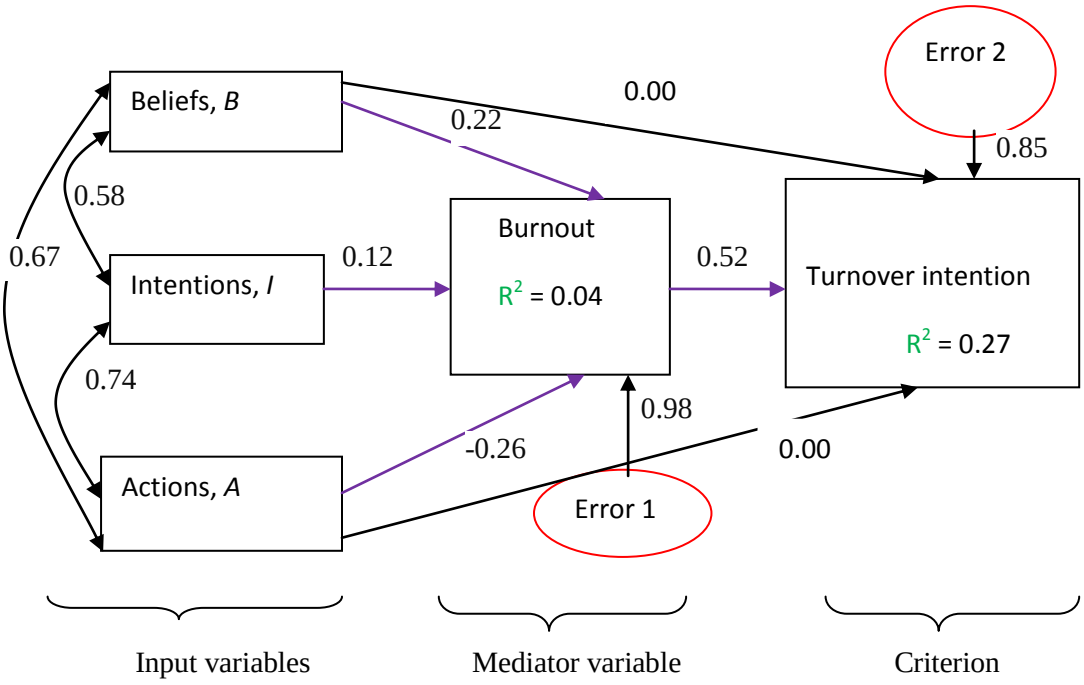

Figure 7. Relationships between variables of the hypothesized mediation model

Using regression equations to predict job burnout from the exogenous variables, i.e., *teaching beliefs*, *intentions*, and *actions* generated *error* 1 that is theoretically assumed to be uncorrelated with the endogenous variables (Pedhazur, 1997); *error* 1 included all residual variables not specified in the equation predicting job burnout. Separate path coefficients were included for *error 1* and *error 2*, respectively. The endogenous variables had direct effects on job burnout but no indirect effects. Although the regression coefficient b = -.57 of teaching actions was not significant, p = 0.051(see Table 16), its path coefficient with job burnout had the highest magnitude in comparison to the path coefficients of teaching beliefs and actions. The path

coefficient also had a negative effect unlike the other two. The path coefficient for teaching beliefs had the highest positive magnitude of 0.22 as well as a statistically significant regression coefficient with job burnout (see Table 16). The path coefficient for teaching action (0.12) was positive but the smallest of the three. However, the three exogenous variables could only account for 4% of the variability in participants' perceptions of job burnout (R^2 = .04; see Figure 7).

A similar trend was found in the magnitudes of the path coefficients associated with the indirect effects of *teaching beliefs*, *intentions*, and *actions*. As one of the predictors, job burnout had the largest direct path coefficient of 0.52 with job turnover intention (see Figure 7). When job burnout was included in the model, the four predictors accounted for 27% of variability in participants' job turnover intention (R^2 = 0.27; see Figure 7). Teaching actions and intentions *total effects* on participants' turnover intentions were non-significant, p = .998 and p = 1.00, respectively (see Figure 7).

Table 16 also presents the unstandardized regression coefficients of the hypothesized model. *Teaching beliefs* showed a significant slope b = 0.54, p = .048 in its relationship with participants' job burnout; *teaching actions* had a near significant regression coefficient b = -0.57, p = 0.051 with job burnout; but *teaching intentions* did not have a significant association with job burnout, $b = 0.26$, $p = .316$. All three input variables did not have significant associations with job turnover intentions. Job burnout scores showed a significant association $b = 0.17$, p with job turnover intention. Also included in Table 16 are the corresponding path coefficients. The path coefficients, β, were interpreted as indicators of the effects of exogenous variables on the endogenous variables (Pedhazur, 1997).

Table 16

Regression and Path Coefficients of the Hypothesized Mediation Model

Path	Unstandardized coefficient, *b*	Standardized/path coefficient, *β*	*SE*	*p* value
Burnout[a] ◄- - - Beliefs[b]	.54	.22	.273	.048*
Burnout ◄- - - Intentions[c]	.26	.12	.260	.316
Burnout ◄- - - Actions[d]	-.57	-.26	.289	.051
Turnover[e] ◄- - - Beliefs	.00	.00	.078	.972
Turnover ◄- - - Intentions	.00	.00	.073	1.00
Turnover ◄- - - Actions	.00	.00	.082	.998
Turnover ◄- - - Burnout	.17	.52	.023	.000*
Burnout ◄- - - error 1	15.11	.98	.868	.000*
Turnover ◄- - - error 2	4.27	.85	.244	.000*

Note. [a]Job burnout, [b]Teaching beliefs, [c]Teaching intentions, [d]Teaching actions, and [e]Job turnover intentions; *significant at α = .05.

Table 17 is a summary of the *direct*, *indirect*, and *total effects* on job turnover intention. The magnitudes of the total effects could be described as *moderate* for *teaching beliefs* (0.33) and *substantial* for job burnout (0.52) in their roles as predictors of participants' job turnover intentions (Davis, 1971) (see Table 17). The endogenous variables had direct effects on job burnout but no indirect effects. Although the regression coefficient *b* = -.57 of *teaching actions* was not significant, *p* = 0.051(see Table 16), its path coefficient with job burnout had the highest magnitude in comparison to the path coefficients of teaching beliefs and teaching actions. This path coefficient also had a negative effect unlike the other two. The path coefficient for *teaching beliefs* had the highest positive magnitude of 0.22 as well as a statistically significant regression coefficient with job burnout, *p* = 0.048 (see Table 16).

Table 17

Total Direct and Indirect Effects of the Hypothesized Mediation Model

	Beliefs, *B*	Intentions, *I*	Actions, *A*	Burnout
Direct	0.22	0.12	-0.26	0.52
Indirect	0.11	0.06	-0.14	0.00
Total	0.33	0.18	-0.40	0.52

CHAPTER V

Summary of the Study, Conclusions and Implications, Recommendations, Discussion, and Contributions

Summary of the Study

The purpose of this study was to investigate and describe associations between levels of perceived job burnout, attributes of teaching perspectives as per the *Teaching Perspectives Inventory* (TPI), and job turnover intentions of OSU faculty. In addition, it was intended to describe the influence of participants' personal and professional characteristics on the associations that described perceptions of job burnout and job turnover intentions of faculty members with teaching appointments at OSU during the fall semester of 2013.

Prior research by NIOSH (2011) and HERI from 2001 to 2011 established the prevalence of job stress/burnout among national university faculty samples. Job turnover intention was known to have an association with job burnout (Kinman, 2001; Lindholm & Szélényi, 2008). Smith et al. (1995) and Motsui and Onglatco (1992) noted perceptions of workplace stress/burnout were personal. In general, the individual instructor's interpretation of a stressful workplace, his or her instructional experiences, and perceptions of himself or herself as an instructor are unique. The instructor's perceptions of him/herself-as-instructor are understood in terms of his or her teaching beliefs, intentions, and actions which in different combinations, define teaching perspectives (Pratt, 1992).

On the other hand, Xu (2008) and Clark (1997) concluded that disciplinary

specializations resulted in differentiated attitudes and approaches to teaching. For example, HERI (2011) found differences in teaching approaches between STEM and non-STEM instructors. The expectation of associations between these concepts led the researcher to pose seven research questions:

1. What were selected personal and professional characteristics of the participants?

2. What were the participants' dominant teaching perspectives?

3. What levels of job burnout were reported by the participants?

4. What levels of job turnover intentions were reported by the participants?

5. Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?

6. Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?

7. Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?

Participants

The study was based on the perceptions of 157 OSU faculty members who satisfactorily completed the survey questionnaire meant for all Stillwater campus instructors during the fall semester of 2013.

Design of the Study

Causal modeling or path analysis was not used with the intent to establish causality but rather to determine and explore significant correlations as well as the direct and indirect effects between the conceptual variables of the study, i.e., measures of teaching perspectives, job burnout, and job turnover intentions (Ary, Jacobs, & Razavieh, 1996; Pedhazur, 1997). When used with simple models, multiple regression yields the same results and leads to similar conclusions owing to similar assumptions in the two models (Pedhazur, 1997). Using path analysis, predicted regression coefficients of measures of teaching perspectives, job burnout, and job turnover intentions were compared to observed correlations to determine statistical significance. Path analysis was appropriate for this study because job burnout, job turnover intentions, and participants' teaching perspectives could not be manipulated without ethical violations (Maruyama, 1998), and for theoretical reasons (Pedhazur, 1997).

Measures of Job Burnout

The Shirom-Melamed Burnout Measure (SMBM) was used to measure the participants' perceptions of job burnout. The instrument was made up of three subscales: the physical exhaustion subscale had six items; the cognitive exhaustion subscale was made up of five items; and, the emotional exhaustion subscale had three items (see Appendix C). Job burnout was the mediator variable between measures of teaching perspectives and job turnover intentions. All of the 14 questionnaire items were rated by participants using a seven-point summated-rating scale: 1 = *Never or almost never*, 2 = *Very infrequently*, 3 = *Somewhat infrequently*, 4 = *Sometimes*, 5 = *Somewhat frequently*, 6 = *Very frequently*, and *7 = Always or almost always*.

Measures of Teaching Perspectives

The Teaching Perspectives Inventory (TPI) was used to measure participants' teaching beliefs, intentions, and actions. The 45-item instrument was the final result of the development of the TPI by Dr. Daniel Pratt beginning in the early 1990s. The TPI is a composite of 15 items on teaching beliefs, 15 items on teaching intentions, and 15 items on teaching actions (see Appendix E). All items were measured by five-point summated-rating scales. The items on teaching beliefs had ratings defined as follows: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree.* Teaching intentions and teaching actions had the same scale anchor descriptors to measure the frequency with which participants had particular teaching intentions or took specific teaching actions: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *usually*, and 5 = *always.*

Measuring Job Turnover Intentions

To determine participants' job turnover intentions, the Walsh et al. (1985) five-point instrument was used (see Appendix G). The instrument had five items and was used as the output or criterion variable of the study. Its rating choices were 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*.

Participants' Personal and Professional Characteristics

Participants' ages ranged from 29 to 77 with a mean age of 49.3 years. More than one-half (56.1%) were male; 96.2% were U.S. citizens and among these 87.9% were native born. Most (87.9%) were holders of doctoral degrees and more than two-thirds (72.0%) were either tenured or on a tenure track. Participants' average university teaching experience in the United States was 16.6 years and 50% of them had taught for periods not exceeding 14 years. Participants' average percentage appointments were 55.9% teaching, 37.1% research, and 19.8% outreach. However, 49.7% of the participants had never taken any pedagogy/andragogy course. The average participant had taken 2.2 such courses at the time of this study. During the fall

semester of 2013, a typical participant taught 2.5 undergraduate courses, 1.7 graduate courses, and had an average student enrollment of 86.4 students enrolled in these courses.

Data Collection Methods and Procedures

Data collection for the pilot study commenced on October 3, 2013 with the electronic mailing of a *prenotice* (see Appendix H) to 50 randomly selected prospective participants from all of the OSU colleges (Dillman, 2007). The *invitation to participate* (see Appendix I) was mailed three days later and participants were allowed seven days to respond. The 9% response rate prompted the researcher to modify the questionnaire to boost the response rate of the full study. After the modified questionnaire was approved by OSU's IRB office (see Appendix B), the final questionnaire *prenotice* (see Appendix H) was sent via an electronic mail message on October 28, 2013. These correspondences were also electronic mail messages. The corresponding *invitation to participate* (see Appendix I) was sent on October 30, 2013 and a one-time *thank you/reminder* (see Appendix O) on November 6, 2013. The total time allowed for data collection was 14 days. In both cases, the questionnaire was delivered online using *Qualtrics*® computer software which appeared as a link in the electronic mail messages.

Data Analysis

The data collected were coded for computerized analysis which was done using IBM® SPSS® version 22.0 and IBM® SPSS®AMOS. Research question one asked, *What were selected personal and professional characteristics of the participants?* Descriptive statistics, including percentages, frequency counts, means, and standard deviations, were used to analyze this research question as well as research question two, *What were the participants' dominant teaching perspectives?;* research questions three, *What levels of job burnout were reported by the participants?;* and, research question four, *What levels of job turnover intentions were reported by participants?*

Research question five asked – *Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?* Together with research question six – *Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?* – these questions were analyzed using Pearson product moment correlation (*r)* and Spearman's rho (ρ) correlation coefficients.

Research question seven, which asked, *Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?,* was analyzed using multiple regression methods and by conducting the Sobel test for mediation using IBM® SPSS®AMOS. This analysis was undertaken after confirming linearity of the variables used in the regression equations, i.e., teaching beliefs, intentions, actions, job burnout, and job turnover intentions. The analysis was done by inspecting the scatter plots of standardized predicted values against standardized residuals for symmetry about the line, z = 0 (representing the mean). Collinearity diagnosis of the covariance matrices was carried out to confirm that variables entered into the regressions models were not dependent. Tolerance, variance inflation factors, and variance proportions were used to confirm non-collinearity among the variables (Field, 2009). Normality was checked by *Q-Q* plots as well as using the Kolmogorov-Smirnov (K-S) test. Both teaching intentions and actions indicated significant departure, $p = .046$ and $p = .010$, respectively, from normal distributions with similar parameters (see Table 18). The distribution of teaching beliefs was normal, i.e., $p = .066$ using the K-S test (see Table 18).

Table 18

Kolmogorov-Smirnov Test for Normality

	Test statistic	*df*	*p*-value or *Sig.*
Beliefs	.069	157	.066
Intentions	.072	157	.046*
Actions	.083	157	.010*

Note. *Significant departure from the normal distribution at $\alpha = .05$ level

When all three exogenous variables were entered in a regression model, the paths, including teaching intentions and actions, were non-significant; however, the two variables could not be removed from the analysis because the use of path analysis was based on the theoretical formulation of the model (Pedhazur, 1997). Pedhazur (1997) mentioned two main concerns in using mediation models: 1) the measurement of the input variable(s), i.e., *X* without error was necessary to ensure replication. However, only teaching beliefs could be expected to be stable in the long term (Pratt & Associates, 1998). Measuring X without error could not be quarantined in this study because teaching intentions, actions, and contexts (which may influence job burnout) vary over time, also they involve people; and, 2) errors of specification of the regression model arising from the number of input variables.

Given the effective response rate for this study ($N = 157$; 12.1%), the researcher did not include more than three input variables because the study would have required more respondents to attain 0.80 statistical power, medium effect size of 0.15, and a 5% chance for Type I error (Cohen, 1992). In particular, under specification has the effect of including other variables as residuals with the risk of creating correlation between *X* and the residuals, again violating one of the analytical assumptions and introducing bias in the results (Maruyama, 1998). Therefore, readers of this study are advised to be cautious in interpreting its findings. However, the test of

regression models is known to be robust and able to withstand minor violations of assumptions (Pedhazur, 1997).

Summary of the Study's Findings

Research Question #1

Participants varied in age from 29 to 77 years with the average age of 49.28 years and a standard deviation of 11.11 years (see Table 6). Their minimum time of teaching in the United States was one year and the maximum was 45 years. The average participant had taught for 16.6 years with a standard deviation of 11.63 years. It was determined that 56.1% of the study participants were male and 43.3% were female. Among 96.2% of the participants who were U.S. citizens, 87.9% were native born, 3.2% were naturalized, and 1.3% were permanent residents. Only 3.2% of the participants were noncitizens. Regarding the academic degrees held by the participants, 84.7% had earned a doctorate; 11.5% were at the Master's level, and 1.9% held only a Bachelor's degree. Further, 51.0% of the participants were tenured, 21.0% held tenure track status, and 24.8% were not on a tenure track (see Table 6).

Fewer respondents (33.8%) taught science, technology, engineering, and math (STEM) courses than the number of participants (47.8%) who taught non-STEM courses (see Table 7). About one-half of the participants had never taken a pedagogy/andragogy course; those who had taken such a course (48.5%) averaged a total of two courses. Three-fourths (75.2%) of the participants taught one or more undergraduate face-to-face courses and only 8.3% taught at least one undergraduate online course. The mean enrollment in undergraduate courses was 101.90 students, and the standard deviation was 136.10. The minimum enrollment in undergraduate courses was four students and the maximum was 511 students. Among participants who taught courses at level 5000 or higher, i.e., graduate, 45.8% taught face-to-face and 8.9% taught online

courses. Enrollment in such courses included a minimum of one student and a maximum of 100 students. The average enrollment was 27.15 with a standard deviation of 38.29 (see Table 9).

Research Question #2

The teaching perspective associated with the largest value of the sum of commitment variables, i.e., *teaching beliefs*, *intentions*, and *actions*, is considered the dominant perspective by inspection (Pratt, 1992). Four such dominant teaching perspectives were held by the research participants. Among the 157 participants, 33.8% held *apprenticeship* as their dominant teaching perspective; 23.6% held *transmission*, 18.5% held *development*, and 9.60% held *nurturing* as their dominant teaching perspective, if limited to only one perspective (see Figure 2). When dominant teaching perspectives were identified by a clear minimum distance of one standard deviation between the commitment sums of the perspectives, five dominant perspectives were found for the participants. *Apprenticeship* was a dominant teaching perspective for 70 (34.8%) respondents, *development* for 55 (27.4%) respondents, *transmission* for 53 (26.4%) respondents, *nurturing* for 22 (10.9%) respondents, and *social reform* for one respondent (0.01%). The preceding accounts for more than one dominant perspective for a given respondent. Further, 60.5% of the study participants held one dominant teaching perspective, 33.8% held two, and 5.7% held none (see Figure 3).

Except for the *nurturing* and *social reform* teaching perspectives, more male than female participants held *transmission*, *apprenticeship*, or *development* as their dominant teaching perspective. However, under *nurturing*, more than twice as many female than male participants held it as a dominant teaching perspective irrespective of the way dominance was operationalized. *Apprenticeship* was also the more frequent dominant teaching perspective by college affiliation; it was the top dominant teaching perspective in six of the seven colleges followed by transmission which was the most prevalent in two of the colleges.

Research Question #3

The participants reported an overall job burnout level of *M* = 2.38 and *SD* = 1.34 as per a 7-point summated-rating scale (see Table 12). The average participant perceived job burnout *very infrequently*, i.e., level two on the scale. About 40% of the research participants, i.e., 61 respondents, *never* or *very infrequently* experienced job burnout. Nearly one-half of the participants (48.1%) experienced job burnout either *somewhat infrequently* or *sometimes*. About 12% of the participants (18) experienced job burnout *always*, *very frequently*, or *somewhat frequently*. Participants' perceived physical exhaustion *somewhat infrequently* (*M* = 3.25, *SD* = 1.31). The participants' also perceived cognitive exhaustion *somewhat infrequently* (*M* = 2.93, *SD* = 1.29). Emotional exhaustion was perceived *very infrequently* by the study's participants (*M* = 2.47, *SD* = 1.25) (see Table 12).

Research Question #4

As a group, participants' job turnover intention had a mean score of 2.15 (*SD* = 1.00) indicating collective opinion regarding their turnover intention was *disagree* based on the 5-point summated-rating scale used in the study (see Table 13). Those who indicated either *strongly disagree* or *disagree* constituted 64.7% of the respondents; those who were of the *agree* or *strongly agree* opinions comprised 10.3% of the respondents. One-fourth (25%) of all participants held neutral opinions regarding their job turnover intentions (see Table 13).

Research Question #5

No significant correlations were found between participants' dominant teaching perspectives and their turnover intentions (see Table 14). Most calculated correlations were negligible, i.e., 0.01< according to the Davis conventions (1971).

Research Question #6

Job burnout scores correlated significantly with the participants' job turnover intention scores. The correlation between overall job burnout and job turnover intention was $r = 0.52$ (see Table 15). The correlation between individual job burnout components and job turnover intention was significant ($p < .05$) and strongest with emotional exhaustion ($r = 0.37$) and least with physical exhaustion ($r = 0.35$). The correlation between cognitive exhaustion and job turnover intention was in between, i.e., $r = 0.36$.

Research Question #7

The path model of this study was categorized as *just identified* because the maximum possible number of correlations from five variables (υ) in the model, i.e., $\upsilon (\upsilon - 1) / 2 = 10$, was equal to the number of path coefficients to be estimated (Maruyama, 1998). The degrees of freedom were obtained by subtracting the number of path coefficients from the number of possible correlations, in this case, 10 - 10 = 0. When a model has zero degrees of freedom, model fit is not tested by determining its significance as a model but by testing the measurement or parameters that may be important (Maruyama, 1998). Accordingly, *teaching beliefs* had a significant association with job burnout, $b = 0.54$, $p = 0.048$ (see Table 16); *teaching intentions* and *actions* did not have significant associations with job burnout. The three variables had no association with the participants' job turnover intentions, $b = 0$, $p > 0.05$. However, job burnout did have a significant association with the participants' job turnover intentions, $b = 0.17$, $p < 0.001$ (see Table 16).

The path coefficients between job burnout and teaching beliefs, intentions, and actions were $\beta = 0.22$, $\beta = 0.12$, and $\beta = -0.26$, respectively (see Figure 7). The path coefficients between job turnover intention and teaching beliefs, intentions, and actions were $\beta = 0.00$ in each case. Therefore, no direct effects were found between the three input variables and job turnover

intention. The path coefficient between job burnout and job turnover intention was $\beta = 0.52$; therefore, the direct effect of job burnout on job turnover intention was 0.52 and the indirect effect of job burnout on job turnover intention was zero. The model with the mediator, perceptions of job burnout, accounted for 27% of the variability in participants' perceptions of job turnover intention ($R^2 = 0.27$) (see Figure 7).

Conclusions and Implications

Research Question #1

What were selected personal and professional characteristics of the participants?

Younger instructors have been known to perceive higher stress than older instructors with more years of teaching experience (Kinman, 2001). One-fourth (25%) of the participants were 40 years or younger with seven years of teaching experience or fewer (see Table 6). According to Kinman (2001) and Blix et al. (1994), younger faculty members need time to adapt to the institution for which they work and to learn to manage multiple roles. In a U.S. national survey on antecedents to job turnover intent, Lambert, Hogan, and Barton (2001) found tenure to have a stronger, significant but negative relationship with turnover intention than age which had a significant and positive relationship. In this study, participants' job burnout was higher for females ($M = 3.24$, $SD = 1.13$) than males ($M = 2.79$, $SD = 1.06$). Lambert et al. (2001) found no significant relationship between gender and job turnover intention.

Participants had highest average percentage appointments in teaching (55.9%) and research (37.1%) (see Table 7); these roles of faculty members have been associated with job stress (Gugliemi & Tatrow, 1998; Lawver & Smith, 2014) and could influence participants' perceptions of job burnout and job turnover intentions. However, with 51% of the participants having attained tenure status and another 21% on a tenure track, the overall perceptions of job burnout and associated job turnover intentions among the study's participants may have been

influenced downwards (Gmelch et al., 1986). The group of instructors whose personal and professional characteristics rendered them vulnerable to job stress/job burnout may have perceived the situations as such but because their number was small when considered separately, no meaningful conclusions could be drawn about their intentions. The only appropriate option was to report on the entire group of participants based on their mean perceptions of job burnout and job turnover intentions.

Research Question #2

What were the participants' dominant teaching perspectives?

A participant's dominant teaching perspective is one that has a perspective score separated from the mean of the five perspective scores by one standard deviation or more (Collins & Pratt, 2011). *Apprenticeship, development*, *transmission*, *nurturing*, and *social reform* were dominant for 70, 56, 53, 52, and one participant, respectively (see Figure 3). Therefore, *apprenticeship* held a plurality among the five perspectives with the next three perspectives nearly equal in number of adherents. Further, 60.5% of the participants held one dominant perspective, 33.8% held two dominant perspectives, and 5.7% expressed no dominant teaching perspective (see Figure 3). In a related study of university faculty by Deggs (2005), 72.5% of his participants held one teaching perspective, 3.8% held two dominant perspectives, and 23.7% had no dominant perspective.

These findings demonstrate diversity in underlying teaching beliefs, intentions, and actions, and a commitment to approach teaching a certain way (see Figure 2). Similar to Degg's (2005) findings, *apprenticeship* appealed to the highest proportion (33.8%) of the participants and *social reform* to the fewest (0.6%); *development* and *transmission* were found to have about the same proportions, i.e., 20.6% and 19.8%, respectively, in the case of Degg's (2005) study, and

18.5% and 23.6%, respectively, in this study. *Nurturing* in both studies was fourth in appeal to the participants.

The fact that different institutions and therefore contexts had similar patterns in teaching *beliefs*, *intentions*, and *actions* 10 years apart may imply patterns in teaching perspectives have more to do with unique combinations of teaching *beliefs*, *intentions* and, *actions* by disciplinary specializations. Differences in perceived job burnout based on disciplinary specializations could be linked to one or several of the teaching *beliefs*, *intentions*, and *actions*. As established by this study, the effects of teaching *beliefs*, *intentions*, and *actions* did not jointly influence job turnover intentions significantly in the presence of job burnout as a mediator (see Appendix S and Figure 7). To determine the effective combination of teaching *beliefs*, *intentions*, and *actions* that get their effects on job turnover intention mediated by job burnout, it may be necessary to alter the model followed in this study to retain more significant parameters (Maruyama, 1998).

Research Question #3

What levels of job burnout were reported by the participants?

The participants' overall job burnout (M = 2.38, SD = 1.34; see Table 12) was higher than M = 2.16, as reported by Shirom for the SMBM norm group (as cited in Deilh, 2009). Although participants' overall job burnout score was only about "2" on a 7-point scale, comparisons with other studies indicated they perceived higher than the norm group levels of job burnout. However, using the SMBM, some groups of professionals have been found to perceive higher levels of burnout; for example, Front Residence Staff, who worked with emotionally disturbed children and teenagers in care, reported higher emotional and cognitive exhaustion scores, i.e., M > 5.5 (Deihl, 2009). In their validation studies of two instruments to measure job burnout, Shirom and Melamed (2006) determined the mean level of job burnout for 198 university staff in Israel was 2.10 (SD = 0.94) using a 7-point Maslach Burnout Inventory, which correlated with the

SMBM at 0.79. The participants in this study did not differ substantively from the instruments' validation group (Shirom & Melamed, 2006).

With adjustments to the hypothesized model used in this study, it may be possible to demonstrate the relationship between aspects of teaching perspectives, levels of job burnout, and levels of job turnover intention of university faculty with teaching appointments.

Research Question #4

What levels of job turnover intentions were reported by the participants?

The overall job turnover intention of the participants (M = 2.15, SD = 1.00; see Table 13) did not differ substantively from Walsh et al. (1985) norm group (M = 2.23, SD = 0.90). Kinman (2001) estimated 15% of the faculty members he found to be highly burned out in regard to their jobs had job turnover intentions. In the case of this study, 10.3% of the participants were of the *agree* and *strongly agree* opinions regarding their perceptions of job turnover intentions. Because the participants of this study perceived job burnout *very infrequently*, they had lower job turnover intentions than instructors who were investigated by Blix et al. (1994). However, 25% of the participants in this study were of the *neutral* opinion regarding their job turnover intentions; this group of participants at level "3" on a 5-point scale perceived higher job turnover intention than the average participant (M = 2.15).

Research Question #5

Did significant relationships ($p < .05$) exist between measures of the participants' dominant teaching perspectives and their job turnover intentions?

The correlations between measures of dominant teaching perspectives and job turnover intentions were all non-significant at $\alpha = .05$ (see Table 14). This finding was not a concern given the condition for mediation was a significant indirect effect of the input variable(s) on the output

variable (Zhao et al., 2010). However, the nonsignificance of the hypothesized relationship was an indicator of the necessity for adjustments to the study's model.

Research Question #6

Did significant relationships ($p < .05$) exist between the participants' perceptions of job burnout and their job turnover intentions?

The finding that the participants' job burnout scores were positively and *substantially* correlated with their job turnover intention scores indicated some of the direct effects of significant ($p = 0.048$; see Table 17) input variables, e.g., *teaching beliefs* on burnout, could be transmitted to job turnover intention as indirect effects. This would support the hypothesized model to some extent. Previous researchers, including Mattila (2006) and Niederman and Sumner (2004), found similar relationships between the variables even when they used different measuring instruments. Using the general Maslach Burnout Inventory, MBI-G, Mattila (2006) found a Pearson correlation of $r = 0.628$ between job burnout and job turnover intention. The positive co-variation between job burnout and job turnover intention implies that an increase in job burnout levels (and persistence of job burnout conditions) leads to greater job turnover intention. This scenario is also in agreement with Hobfoll's (1989) theory of conservation of resources, i.e., threats to and depletion of resources leads to an individual's incapacity to cope with chronic work-related stress and eventual job turnover intention.

Research Question #7

Did the participants' perceptions of job burnout serve as a mediator variable between their teaching perspectives and job turnover intentions?

Used with the input variables teaching *beliefs*, *intentions*, and *actions*, job burnout did not serve as a mediator between teaching perspectives and job turnover intentions (see Table 17). As

a consequence, path analysis was conducted with more focus on the significance of parameters (Maruyama, 1998). The significance of teaching *beliefs* was brought out by the amount of direct effect (0.22) it had on job burnout and indirect effect (0.11) it had on job turnover intention (see Table 17). Adjustments to the hypothesized model seemed promising based on the *ad hoc* findings obtained when teaching *beliefs* was used as the input variable and job burnout as the mediator. Several regression equations of the modified mediation model attained significance with the Sobel test (see Appendix S). With this adjustment to the model, job burnout was associated with higher magnitudes of path coefficients, β, and appreciable increase in the values of R^2 (see Appendix S). In rethinking the model, the balance between model fit to the data and the importance of specific parameters should be explored further (Maruyama, 1998).

Limitations

A census involves the study of all the members of a target population and is meant to provide detailed information about the population and entails zero sampling error (Creswell, 2012). However, only 12.1% of the possible respondents took part in the study. Table 19 indicates the highest response rate was from the College of Human Sciences (14.8%) followed by the College of Arts and Sciences (13.1%). The lowest response rate was from the College of Engineering, Architecture, and Technology (7.2%). The participants in this study were not sufficiently representative of the target population owing to the low response rate. Therefore, caution should be exercised if generalizing based on the results of this investigation. Further, the fact 96.2% of the respondents were U.S. citizens (see Table 6) from the target population where 86.1% were U.S. citizens (see Table 1) implies the findings may be biased by the over-representation of specific groups, especially in regard to citizenship.

Table 19

Response Rates by Colleges

College	Target Population	# of Respondents	Response %
College of Arts & Sciences	534	70	13.1
College of Agricultural Sciences & Natural Resources	186	21	11.3
College of Education	161	13	7.7
College of Human Sciences	88	13	14.8
Spears School of Business	149	17	11.4
College of Engineering, Architecture, & Technology	139	10	7.2
College of Veterinary Medicine	61	6	9.8

Associated restrictions of range have the effect of reducing calculated correlation coefficients and making it difficult to generalize findings to non-citizens or other small categories of participants (Pedhazur, 1997). Another limitation of the study arises from the fact it was a one-time, cross-sectional survey of instructors' perceptions of job burnout and job turnover intentions. The job burnout instrument asked participants to focus on the 30 days prior to the survey questionnaire when responding. Findings might vary with a different set of respondents as well as with the time of the academic year when data is collected (Creswell, 2012).

Five of the participants had teaching appointments lower than 20%; one of them had an outreach appointment of 90% and four others held research appointments of more than 80%. Nevertheless, their scores were included in the analysis provided they were not outliers based on other rationale (see Chapter Four). The aim was, however, to analyze the perceptions of participants who had appreciable teaching appointments. Therefore, this aberration also should be considered if generalizing based on the results of this study.

Recommendations

Recommendations for Additional Research

The associated effect size of the mediated model of $R^2 = 0.27$ could be improved. According to Maruyama (1998), the desire to have a significant mediated model or a higher R^2 value depends on the theory underlying the study. To attain significance, the researcher recommends replication of this study with a larger sample, preferably one where $N > 200$ (Deilh, 2009; Maruyama, 1998). A higher N would boost the power of detecting the effect. It is likely that *teaching actions*, which was nearly significant, $b = -0.57$, $p = 0.051$, might influence the input variable to exert a greater effect on job turnover intention. Moreover, removing *teaching intentions* from the analysis might result in a significant model because of increased precision of regression coefficients when more degrees of freedom are available (Stevens, 2009). However, from theory, teaching perspectives derive from the combination of teaching *beliefs*, *intentions,* and *actions* (Pratt & Collins, 2011). Therefore, removing any one variable from the model would undermine the theory on which this study was based in regard to teaching perspectives.

An alternative is to attempt to boost the effect size, R^2, by incorporating other variables known to be associated with job turnover intention in the regression model to account for as much of the variability in job turnover intention as possible. In particular, job satisfaction could be added to create a more inclusive model owing to its association with job turnover intention (Lambert et al., 2001). The inclusion of other variables such as organizational commitment and professional commitment also may raise the value of R^2 higher (Keough, 2006). Such measures would reduce any bias resulting from under specification of the regression model (Pedhazur, 1997). However, more input variables will also require a larger sample size to maintain power and the study's Type I error rate (Cohen, 1992).

From the significant association between teaching beliefs and job burnout, $b = 0.54$, $p = 0.048$, the researcher recommends investigation of the link between *teaching beliefs* and job turnover with job burnout as the mediator variable. Such studies are likely to reveal differences in teaching beliefs between groups of instructors based on personal/professional characteristics. Moreover, because different teaching perspectives emphasize different *beliefs* (Pratt & Associates, 1998), with sufficient sample sizes, *teaching perspective*-based differences in job turnover intention may emerge from the regression model involving job burnout as a mediator.

In addition, improving on the design to include the selection of a random sample of participants, the bias that results from self-selection in a census study, such as this investigation, could be reduced resulting in more generalizable findings (Creswell, 2012). The use of a qualitative research approach involving personal and/or focus group interviews with instructors might shed light on important personal and contextual factors that create job burnout and job turnover intentions through perceptions of physical, cognitive, and emotional exhaustion. Apart from its *holistic* approach to inquiry, qualitative inquiry seeks to interpret the meanings of phenomena by allowing respondents to answer questions in their own words (Ary, Jacobs, & Razavieh, 1996). This way, a better link might be established between instructors' epistemological beliefs and their perceptions of job burnout and job turnover intention.

A mixed methods approach (Creswell, 2012) could be used, either concurrently or as a follow up to a quantitative study, as a complementary way to more thoroughly understand relationships between university instructors' teaching perspectives, perceptions of job burnout, and job turnover intentions. The use of quantitative and qualitative approaches in the same study combines methods, different types of data and designs, as well as different situations or cases, i.e., as a form of triangulation, to enhance the researcher's understanding of the phenomenon under investigation (Creswell, 2012).

During the field trial of the study's instruments, one of the nine respondents spent 49 minutes to complete the entire questionnaire which was meant to take 15 minutes. This occurred because part of the survey was an online instrument accessible through a self-generated anonymous code. This procedure broke continuity in the questionnaire and was complex for respondents who were not incentivized to respond. Integration of the two parts of the survey questionnaire into one was crucial for the level of response attained by this study. The researcher recommends a straight-forward, clear, and one-piece strategy for online survey questionnaires. Second, although the survey questionnaires, as transmitted by electronic mail messages, were broadcast at 9:00 a.m., most responses occurred around 12:00 noon and after 4:00 p.m. For optimum response from OSU faculty members, it is recommended that future researchers take these times into account when planning to send survey questionnaires to OSU faculty members using electronic mail.

Recommendations for Practice

The important role that teaching *beliefs* have in defining teaching perspectives as well as their indirect effect on job turnover intentions of instructors who may be burned out deserved attention. This may be more apparent with instructors who had high workloads and as a result were physically exhausted; instructors with fewer years of teaching experience; those instructors who espoused the *transmission* teaching perspective; and those who taught STEM courses (see Appendix S).

From Appendix S, it is clear the participants most at risk of job burnout included females, those aged 40 years or younger, as well as those who had not taught more than 14 years at the university level. In this study, one-fourth (25%) of the participants were 40 years old or younger and had taught at the university level for seven or fewer years (see Table 6 & Table 7). Their vulnerability to job burnout was compounded if they had substantial teaching (> 55.9%) (Lawver

et al., 2014) and/or research appointments (> 37.1%) (Blix et al., 1994) and were untenured (see Table 7). Because some of the exhaustion female faculty faced might emanate from beyond the workplace, it is recommended OSU provide professional counseling services and take steps to encourage all faculty to routinely seek help and evaluation for psychological wellbeing (Melamed et al., 2006). To address perceived job burnout among beginning faculty members, programs designed to build confidence in their teaching and research skills as well as strategies for mitigating the buildup of job stress (Lawver et al., 2014) are recommended. Time management skills as well as improving their professional capacities regarding their interactions with students may help to minimize perceptions of job burnout (Gugliemi & Tatrow, 1998; Kinman, 2001; Lawver et al., 2014).

From the findings of this study, the link between teaching beliefs and physical exhaustion was important for appreciable job turnover intentions to be detected (see Appendix S). Academic departments and other OSU units should assist in helping younger, less experienced faculty with teaching appointments to shape their epistemological beliefs to mitigate against job burnout with the aim of minimizing the tendency to quit when they feel overwhelmed by job tasks. It is recommended that departments consider starting new faculty hires with manageable workloads and as they settle into their various job roles and establish routines. Thereafter, increases in assignments and tasks could be matched with incentives as progress is made toward achieving tenure. In this study, the lack of tenure affected participants' perceptions of job burnout (see Table 6).

OSU's mission to improve people's lives through quality teaching, especially through the activities of the Institute of Teaching and Learning Excellence (ITLE), could help to address levels of job burnout and job turnover intentions among its teaching faculty. However, Eble (1983) noted that faculty who most needed to participate in faculty development activities to improve their teaching did not readily participate. Such instructors could suffer job burnout and

have job turnover intentions if they do not get help. ITLE may also need to be a *guardian* of teaching faculty members by recommending performance standards for entry-level faculty; standards that could help new instructors know when they were underperforming or were overwhelmed by their teaching responsibilities. More faculty members may seek ITLE's services if they knew ITLE was also interested in their wellbeing. Through research studies, ITLE could establish such standards in consultations with other OSU stakeholders. ITLE's staff could assist in assessing instructors' abilities to be effective with diverse students, the quality of their student-teacher interactions, whether they are motivating, their interest in continuing to learn, the teaching support they may need, and the communication of feedback needed for their continual improvement of teaching. Deggs (2005) supported this approach to faculty development and retention.

As shown in Appendix U, female participants had greater job turnover intentions (M = 11.03) than males (M = 10.56). The participants who had fewer than 14 years of college teaching experience perceived significantly (t_{151} = -2.008, p = 0.046) higher job turnover intentions (M = 11.54) than those whose teaching experience was more than 14 years (M = 9.92) of experience. Even though differences in perceived job turnover intention by gender were not statistically significant (t_{153} = -.573, p = 0.567), the level of job turnover intention among female participants with less than 14 years of teaching experience was probably considerable. In addition, participants who were older than 49 years had lower job turnover intentions (M = 10.49) than younger participants (M = 11.45). Therefore, younger female instructors may require special forms of support and incentives to retain them. This is one segment of OSU faculty who could be researched through personal and focus group interviews (Ary, Jacobs, & Rasavieh, 1996) to understand better their job turnover intentions in relation to perceived job burnout. Family-related issues might have a lot to do with high levels of job turnover intentions in the case of female instructors with families and who are younger. Lawver et al. (2014) recommended training in

overall stress management to prevent the experiencing of job burnout and the eventuality of job turnover among agriculture teachers (Lawver et al., 2014).

The OSU Department of Wellness provides students, faculty, and staff opportunities to engage in exercise and other physical activities; individuals are able to build both physical and mental strength. Thereby, participants may increase their capacity to be *hardy* and more able to successfully deal with job stress (Kobasa, 1979). The challenge of time constraints for instructors with high workloads may need to be addressed so they can make the most of these and other physical and mental fitness activities, which may, in turn, increase their *hardiness* and create improved coping mechanisms.

Discussion

This study was designed to investigate the existence of associations between measures of participants' teaching perspectives, job burnout, and job turnover intentions. This was based on previous research which indicated instructors espoused different dominant teaching perspectives (Pratt & Collins, 2011); instructors set high performance expectations for themselves (Hurtado et al., 2012); and, on the knowledge of the association between job burnout and job turnover intention, as established by Keough (2006) and Mattila (2006). From teaching *beliefs*, *intentions*, and *actions* as constituents of teaching perspectives, only teaching beliefs' effects on job turnover intention were significantly mediated by job burnout (see Table 16).

To understand the mechanism of mediation rather than to explain the phenomenon of job turnover intention was of focal interest to the researcher. A mediation model provides an explanation of how or why a mediated effect occurs (Baron & Kenny, 1986). Baron and Kenny (1986) recognized that group norms could play a mediating role in some situations. Normative beliefs about teaching or what Pratt and Associates (1998) referred to as *what ought to be aspects of teaching* (p. 72), stands to inform researchers, supervisors, and others on how groups of

affiliated instructors may plan, teach, and assess learning. Further, as a cohesive group of instructors that are affiliated by discipline, Ajzen's (1991) assertion that subjective norms may encourage individuals to engage in or to refrain from behaviors also comes into play. Therefore, if participants' teaching *beliefs* are to mitigate their job turnover intentions when under conditions of job stress, the individuals' responses to job demands, which may result in job burnout, should be manifested by prominent and strongly held teaching *beliefs* that hold appealing qualities (Ajzen, 1991). According to Ajzen (1991) and Pratt and Associates (1998), such teaching *beliefs* determined an instructor's teaching intentions and actions.

Accordingly, the set of 15 items about teaching beliefs used in this study had differing perceived strengths and appeal to different groups of instructors. Similarly, groups of affiliated faculty members, especially by disciplinary specializations, would be expected to report varying reasons for their levels of job turnover intentions. How participants taught, and their perceptions of how students in their disciplines learned, was influenced by their espoused teaching beliefs. Xu's (2008) suggestion for discipline–specific research to understand the phenomenon of faculty turnover behavior was appropriate in light of this analysis. As for teaching, the Higher Education Research Institute surveyed college faculty in 2010 - 2011 and found that prevalent use of particular teaching methods differed between STEM and non-STEM disciplines (Hurtado et al., 2012). In this study, the model with physical exhaustion, instead of job burnout as the mediator, was more viable (see Appendix S). In particular, for the participants as a group, the effects of teaching beliefs on job turnover intentions were significantly transmitted or mediated by physical exhaustion.

The working hypothesis of this study was that measures of teaching perspectives had a role to play in participants' job turnover intentions under conditions of job burnout. It was demonstrated that teaching beliefs, a constituent of teaching perspectives, had a direct effect on job burnout (0.22), an indirect effect on job turnover intention (0.11), and a total effect (0.33).

These effects were not large in themselves even though the mediation models were statistically significant (see Appendix R). However, larger R^2 values were also obtained; the R^2 value change from 0.27 (see Figure 7) was lower than R^2 values associated with significant mediation models ($0.31 \leq R^2 \leq 0.34$; see Appendix S). The increase means more of the job turnover behavior was explainable in terms of the hypothesized model. According to Hobfoll's (1989) theory of conservation of resources (COR), assessment of the attributes of specific teaching beliefs might increase the likelihood of participants' job turnover intentions if associated with adverse or persistent perceptions of work-related demands.

From the two latent variables of this study, *teaching beliefs* distinguished itself as the significant constituent of teaching perspectives and *physical exhaustion*, a constituent of job burnout, as the efficient mediator of the effects of *teaching beliefs* on participants' job turnover intentions. This did not negate the importance of the other component variables of teaching perspectives and job burnout; rather, teaching beliefs and physical exhaustion were prominent in accounting for job turnover intentions of the participants in this study at the time it was conducted.

Major Contributions of the Study

Contribution to Literature

Prior to this study, it was not clear what beliefs exerted influence on how faculty members with teaching appointments at OSU experienced job burnout or job turnover intentions. In addition, *teaching intentions* and *actions*, whether singly or jointly with *teaching beliefs*, had not been confirmed to lack significant influences on the way instructors experienced job burnout and job turnover intentions. Smith et al. (1995) found that when university instructors were classified by academic discipline, they perceived job burnout in a patterned way; i.e., disciplinary affiliations could be used to predict levels of job burnout without exactly explaining why. This

study found teaching beliefs exerted significant influence on instructors' perceptions of job burnout, a key predictor of job turnover intentions. To explain why faculty members of different disciplines perceived job burnout differently (Xu, 2009), it may be necessary to investigate beliefs relating to the teaching perspective they most espouse. By mapping the set of teaching beliefs common to a given academic discipline, it may be possible to begin to account for some proportion of perceived job burnout in disciplines that may be due to *strongly held assumptions* about what teaching in those disciplines *ought to be* (Pratt & Associates, 1998).

Contribution to Theory

Teaching perspectives, job burnout and instructors' job turnover intentions are each governed by distinct theoretical positions. Educational research, as is the case with other social science research, involves constructs and variables that cannot be understood well when investigated separately without the benefit of randomized, controlled trials (Maruyama, 1998; Pedhazur, 1997). In terms of the theoretical *causal* mechanism for the occurrence of job turnover intention, this study identified the indirect path from teaching *beliefs* through *physical exhaustion* to *turnover intention,* which holds potential for further research. The total effect (0.33) of teaching *beliefs* on job turnover intention was more than 50% of the total effect (0.52) job burnout had on turnover intention. Accordingly, participants' assumptions or *beliefs* about themselves, teaching content, learners, the context of where they worked, and their teaching ideals (Pratt & Associates, 1998) played a part in their perceptions of job burnout.

Contribution to Practice

Many instructors may not be aware of their teaching perspectives, much less of the importance of their epistemological *beliefs* about teaching and learning. Considering the fact 49.7% of the participants in this study had never taken a pedagogy/andragogy course (Table 7), it matters that instructors pay attention to these issues because they stand to influence their

wellbeing. Moreover, highlighting that instructors identified physical exhaustion (see Table 12) as their leading cause of job burnout supports OSU's efforts to assist its employees with recognizing the importance of wellbeing – physically and mentally. OSU is encouraged to continue to provide resources for that purpose. In concert, faculty members should be incentivized or otherwise motivated to take part in what those resources avail to them.

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APPENDICES

Appendix A

Initial Institutional Review Board Approval

Oklahoma State University Institutional Review Board

Date:	Thursday, September 19, 2013
IRB Application No	AG1340
Proposal Title:	A path analysis study of the influence of teaching perspectives and burnout on instructor-turnover intentions at Oklahoma State University
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved **Protocol Expires: 9/18/2016**

Principal Investigator(s):

Fredrick N. Matofari
23 N. Univ. Place Apt. 1
Stillwater, OK 74075

Michael Craig Edwards
456 Ag Hall
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

▣ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI, advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Shelia N. Kennison

Shelia Kennison, Chair
Institutional Review Board

Appendix B

Final Institutional Review Board Approval

Oklahoma State University Institutional Review Board

Date:	Friday, October 25, 2013	**Protocol Expires: 9/18/2016**
IRB Application No:	AG1340	
Proposal Title:	A path analysis study of the influence of teaching perspectives and burnout on instructor-turnover intentions at Oklahoma State University	
Reviewed and Processed as:	Exempt **Modification**	

Status Recommended by Reviewer(s) **Approved**

Principal Investigator(s):

Fredrick N. Matofari
23 N. Univ. Place Apt. 1
Stillwater, OK 74075

Michael Craig Edwards
456 Ag Hall
Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

The reviewer(s) had these comments:

Modification to change procedures from two separate linked surveys to a single survey is approved.

Signature :

Shelia H. Kennison

Shelia Kennison, Chair, Institutional Review Board

Friday, October 25, 2013
Date

Appendix C

Shirom-Melamed Burnout Measure (SMBM)

Shirom-Melamed Burnout Measure (SMBM)

How Do You Feel at Work?

Below are a number of statements that describe the different feelings that you may feel at work. Please indicate how often, in the past 30 days, you have felt each of the following feelings:

How often have you felt this way at work?

		Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**
P	1	I feel tired							
P	2	I have no energy for going to work in the morning							
P	3	I feel physically drained							
P	4	I feel fed up							
P	5	I feel like my "batteries" are "dead"							
P	6	I feel burned out							
C	7	My thinking process is slow							
C	8	I have difficulty concentrating							
C	9	I feel I'm not thinking clearly							
C	10	I feel I'm not focused in my thinking							
C	11	I have difficulty thinking about complex things							
E	12	I feel I'm unable to be sensitive to the needs of *coworkers* and *customers*							
E	13	I feel I'm not capable of investing emotionally in my *coworkers* and *customers*							
E	14	I feel I'm not capable of being sympathetic to my *coworkers* and *customers*							

Note. P = Physical fatigue; E = Emotional exhaustion; and C = Cognitive weariness. Also, 1 = Never or almost never; 2 = Very infrequently; 3 = Quite infrequently; 4 = Sometimes; 5 = Quite frequently; 6 = Very frequently; and 7 = Always or almost always

Appendix D

Permission to use the SMBM

Permission to use the SMBM

Samuel Melamed <smelamed@post.tau.ac.il>

Wed 4/3/2013 12:19 PM
Inbox
To:

Matofari, Matofari;

You replied on 4/3/2013 2:17 PM.

Dear Fred,
Thank you for your interest in our measure. You are welcome to use it.
Good luck with your proposed study.
Best wishes,
Samuel Melamed

Appendix E

Teaching Perspective Inventory (TPI)

Teaching Perspective Inventory (TPI)

Daniel D. Pratt and John B. Collins ©*2003*

This inventory will help you identify the Beliefs, Intentions, and Actions that make up your perspectives on teaching and instructing your learners. As you consider the following statements, think of a single, specific teaching situation in which you have important educational or instructional responsibilities. Remember that these statements represent different and contrasting views of teaching. To agree with some of them means you must logically disagree with others. There are no right or wrong answers.

BELIEFS – What do you believe about instructing or teaching?

	For each statement, circle the letter code that best represents how much you *Agree* or *Disagree*
1	Learning is enhanced by having predetermined objectives.
2	To be an effective teacher, one must be an effective practitioner.
3	Most of all, learning depends on what one already knows.
4	It is important for me to acknowledge learners' emotional reactions.
5	My teaching focuses on societal change, not the individual learner.
6	Teachers should be virtuoso performers of their subject matter.
7	The best learning comes from working alongside good practitioners
8	Teaching should focus on developing qualitative changes in thinking.
9	In my teaching, building self-confidence in learners is a priority.
10	Individual learning without social change is not enough.
11	Effective teachers must first be experts in their own subject areas.
12	Knowledge and its application cannot be separated.
13	Teaching should build upon what people already know.
14	In learning, people's effort should be rewarded as much as achievement.
15	For me, teaching is a moral act as much as an intellectual activity.

Note. SD = Strongly disagree; D = Disagree; N = Neutral; A = Agree; and SD = Strongly agree

INTENTIONS – What do you try to accomplish in your instructing or teaching?

	For each of the following, circle the letter code that best represents how OFTEN you set out to accomplish each intention when instructing or teaching people.
16	My intent is to present content so as to prepare people for examinations.
17	My intent is to demonstrate how to perform or work in real situations.
18	My intent is to help people develop more complex ways of reasoning.
19	My intent is to build people's self-confidence and self-esteem as learners.
20	My intent is to challenge people to seriously reconsider their values.
21	I expect people to know how to apply the subject matter in real settings.
22	I expect people to develop new ways of reasoning about the subject matter.
23	I expect people to enhance their self-esteem through my teaching.
24	I expect people to be committed to changing our society.
25	Individual learning without social change is not enough.
26	I want people to score well on examinations as a result of my teaching.
27	I want people to understand the realities of working in the real world.
28	I want people to see how complex and inter-related things really are.
29	I want to provide a balance between caring and challenging as I teach.
30	I want to make apparent what people take for granted about society.

Note. N = *Never*; R = *Rarely*; S = *Sometimes*; U = *Usually*; and A = *Always*

ACTIONS – What do you do you do when instructing or teaching?

	For each statement circle the letter code that best represents how OFTEN you do each action when teaching or instructing people.
31	I cover the required content accurately and in the allotted time.
32	I link the subject matter with real settings of practice or application.
33	I ask a lot of questions while teaching.
34	I find something to compliment in everyone's work or contribution.
35	I use the subject matter as a way to teach about higher ideals.
36	My teaching is governed by the course objectives.
37	I model the skills and methods of good practice.
38	I challenge familiar ways of understanding the subject matter.
39	I encourage expressions of feeling and emotion.
40	I emphasize values more than knowledge in my teaching
41	I make it very clear to people what they are to learn.
42	I see to it that novices learn from more experienced people.
43	I encourage people to challenge each others' thinking.
44	I share my own feelings and expect my learners to do the same.
45	I help people see the need for changes in society.

Note. N = *Never*; R = *Rarely*; S = *Sometimes*; U = *Usually*; and A = *Always*

Appendix F

Permission to use the TPI

Permission to use the TPI

To: Daniel Pratt <pratt@mail.ubc.ca>;

Matofari, Matofari;

You replied on 8/24/2012 8:40 AM.

Hi Fred,

Yes indeed you have permission from Dr. Pratt and me to use the TPI in your dissertation research. It is in the public domain and free for anyone to use, so please proceed. Here are a few ideas for you to consider as you put your research ideas together:

- I see that you took the TPI on July 14, but I see that your scores are quite close together, plus or minus 1 or 2 points. I suggest that you take the new version of theTPI at www.beta.TeachingPerspectives.com The questions and scoring system are identical, but the order of questions requires you to think of a particular learing setting before you begin ... and to keep that same setting in mind as you answer each of the 45 questions. Generally, this separates out people's perspective better. Try it out and see. It may be more suitable for your dissertation study as well.
- Notice that both the old and the new TPI versions ask for your e-mail address. Here's a simple way to have your participant responses come back to you directly. (1) Set up a project e-mail account ... something generic and simple like OklaTPI@gmail.com and instruct your respondents to enter TWO e-mails into that space; project first, then their own. So if I were a respondent, I'd enter something like this: OlkaTPI@gmail.com, john.collins@ubc.ca That way, they will receive their own results and you will receive an immediate copy.
- Yes, you can embed a link to the TPI directly into your electronic questionnaire. Just make sure that you have identifiers both places so you can match TPI results with your own question results.
- Your university's IRB will likely ask you something about "informed consent". At our university, we address that by reporting to our IRB that respondents have their own fingers on the keyboard so that (1) entering names and e-mails plus (2) clicking "Submit" constitutes their informed consent.

We look forward to learning how your research proceeds. Please keep us informed.

John Collins

Appendix G

Job Turnover Intention Scale

Job Turnover Intention Scale

Job Turnover Intentions

1. I’m starting to ask my friends/contacts about other job possibilities
2. I’m thinking about quitting my job
3. I intend to leave this *university* within the next six months
4. I often look to see if positions with other *employers* are open
5. I’ m thinking about contacting a recruiter about other job possibilities

Appendix H

Initial and Final Pre-notifications

PRE-NOTIFICATION

Dear Colleague,

In the next few days, I will send my dissertation survey questionnaire to you. I am conducting a study of OSU faculty members' perspectives on teaching, the extent to which they perceive university teaching to be an exhausting job, and their associated turnover intentions. Burnout and faculty turnover are significant issues at institutions of higher education. This study will hopefully make a positive contribution in these areas. Your view as a faculty member has no substitute and you are your own best representative on these matters. Please share your views with us.

We look forward to your participation in the study and thank you for your support of my dissertation research.

Sincerely,

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor
Co-PI and Academic Advisor

Okla. State Univ.
IRB
Approved 9-19-13
Expires 9-18-16
IRB # AG-13-40

Pre-notification

Dear colleague,

In the next few days, I will send my dissertation survey questionnaire to you. I am conducting a study of OSU faculty members' perspectives on teaching, the extent to which they perceive university teaching to be an exhausting job, and their associated turnover intentions. Burnout and faculty turnover are significant issues at institutions of higher education. This study will hopefully make a positive contribution in these areas. Your view as a faculty member has no substitute and you are your own best representative on these matters. Please share your views with us.

We look forward to your participation in the study and thank you for your support of my dissertation research.

Sincerely,

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor
Co-PI and Academic Advisor

Appendix I

Initial Invitation to Participate (Pilot Study)

Invitation to Participate

Dear Colleague,
Further to an earlier email notification, I hereby invite you to be one of my dissertation research study participants. The study is a survey of OSU faculty members' teaching perspectives, the extent to which they perceive university teaching to be or not to be an exhausting job, and their associated turnover intentions. Burnout and faculty turnover are significant issues at institutions of higher learning. This study will hopefully make a positive contribution in these areas. Your views as a faculty member have no substitute. Participation in this research will in no way violate your privacy. Furthermore, your participation in the survey is voluntary. I urge you to take the next about 20 minutes to share your views by responding to the following survey questionnaire.

Please **click on** the link below to access the survey questionnaire: Take Survey

Or copy and paste the URL below into your internet browser:
https://okstatecasnr.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=54npQQStZ5y4HdP_e9CxwGPcV7QAH89&_=1

We look forward to your timely response.

Thank you for your time.

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor
Co-PI and Academic Advisor

Okla. State Univ.
IRB
Approved 9-17-13
Expires 9-18-16
IRB # AG-13-40

Appendix J

Initial Survey Questionnaire

The Teaching Perspective Inventory (see Appendix E), as part of the survey questionnaire, was online and its access was achieved through the creation of a self-code by the respondent according to **Section D** of the questionnaire reproduced here. The first part of the questionnaire was the informed consent portion.

INFORMED CONSENT

Dear Colleague,

My dissertation advisor and I invite you to participate in this study. It is a dissertation research study of the Department of Agricultural Education, Communications, and Leadership. The aim of the study is to investigate whether and how teaching beliefs, intentions, and actions are associated with perceived burnout and turnover.

Your participation in this study is completely voluntary; you are not required to answer any question to which you do not wish to respond. It is estimated to take about 20 minutes to complete the questionnaire and you are urged to complete all sections at one time. The questionnaire is made up of four sections. Section A concerns your perceptions about burnout resulting from your teaching. Section B concerns your desire to work in a less stressful environment. Section C is meant to capture your perceptions about teaching. Aspects of your personal and professional profile are included in section D.

Your participation in this study will not jeopardize your privacy as the responses will be kept completely confidential. There are no known risks associated with your participation than those you ordinarily encounter in daily life.

No other person except the researcher and his advisor will have access to the data. Results will be reported in aggregate so that no individuals are identified. Data will be stored on a password protected computer in the researcher's office under lock and key.

Should you desire to discuss your participation in the study and/or request information about it, you may contact Fred Matofari, PhD candidate and principal investigator, phone 4057620665, email: matofar@okstate.edu; or Dr. M. Craig Edwards, 464 Agricultural Hall, phone 4057448141, email: craig.edwards@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Sheila Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74075, 4057443377 or irb@okstate.edu.

Sincere thanks for your willingness to participate in this research study!

Thank you for your time and consideration.

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor Co-PI and
Academic Advisor

Check appropriately

- ❍ Yes, I agree to participate in the study
- ❍ No, not at this time

Section A: Feelings about Work. How do you feel at work? Below are statements that describe the different feelings you may have at work. Please indicate how often, in the last 30 work days, you have experienced each feeling.

	1	2	3	4	5	6	7
1. I feel tired	❍	❍	❍	❍	❍	❍	❍
2. I have no energy for going to work in the morning	❍	❍	❍	❍	❍	❍	❍
3. I feel physically drained	❍	❍	❍	❍	❍	❍	❍
4. I feel fed up	❍	❍	❍	❍	❍	❍	❍
5. I feel like my "batteries" are "dead"	❍	❍	❍	❍	❍	❍	❍
6. I feel burned out	❍	❍	❍	❍	❍	❍	❍
7. My thinking process is slow	❍	❍	❍	❍	❍	❍	❍
8. I have difficulty concentrating	❍	❍	❍	❍	❍	❍	❍
9. I feel I'm not thinking clearly	❍	❍	❍	❍	❍	❍	❍
10. I feel I'm not focused in my thinking	❍	❍	❍	❍	❍	❍	❍
11. I have difficulty thinking about complex things	❍	❍	❍	❍	❍	❍	❍
12. I feel I'm unable to be sensitive to the needs of my colleagues and students	❍	❍	❍	❍	❍	❍	❍
13. I feel I'm not capable of investing emotionally in my colleagues and students	❍	❍	❍	❍	❍	❍	❍
14. I feel I'm not capable of being sympathetic to my colleagues and students	❍	❍	❍	❍	❍	❍	❍

Note. 1 = *Never or almost never*, 2 = *Very infrequently*, 3 = *Somewhat infrequently*, 4 = *Sometimes*, 5 = *Somewhat frequently*, 6 = *Very frequently*, and *7 = Always or almost always*.

Section B: Turnover Intention This section concerns your desire to separate yourself from a stressful work environment. For purposes of this study, it may be the desire to move to a different section, department or faculty within OSU, or move to a different employer. Indicate your level of agreement or disagreement by selecting the opinion that closely matches your position.

15. I am starting to ask my friends/contacts about other job possibilities.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

16. I am thinking about quitting my job.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

17. I intend to leave this section or department or university in the next year.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

18. I often look to see if positions with other sections or departments or employers are open.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

19. I am thinking of contacting a recruiter about other job possibilities.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

SECTION D – Teaching Perspective Inventory (TPI): For your complete anonymity, you are requested to create your own random code to be used with the TPI by providing the following information. All references will be based on the code you create at this point. Please note that you need the code to proceed with the questionnaire.

Your random code consists of the first two letters of your mother's maiden name, your shoe size (as a whole number), and the first two letters of your father's first name.

This part of the survey allows you to share your perceptions about teaching. The TPI is an online survey that has been taken by thousands of people and is highly reliable. The researcher hopes you will find your results to be personally meaningful. Your responses will be completely anonymous if you adhere to the following directions:

- Where your "**First Name**" is required, please use the random code
- Where your "**Last Name**" is required, **use any other except your true name**

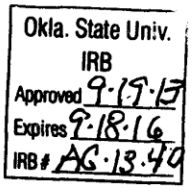
- For "**Your Email**" field, please enter the researcher's email: ***matofar@okstate.edu***

You will note when you get a copy of the results that none of the personal information you provide to the online TPI is output. Your TPI results are displayed on the screen when you click the (>>) button at the bottom right of the window to close out and store your responses to this survey questionnaire.

Again thank you for participating.

Click on this link to proceed to the TPI: http://www.teachingperspectives.com/drupal/take-survey

END



Appendix K

Modified Survey Questionnaire

The informed consent form was the first page of the online survey questionnaire.

INFORMED CONSENT

Dear Colleague,

My dissertation advisor and I invite you to participate in this study. It is a dissertation research study of the Department of Agricultural Education, Communications, and Leadership. The aim of the study is to investigate whether and how teaching beliefs, intentions, and actions are associated with perceived burnout and turnover.

Your participation in this study is completely voluntary; you are not required to answer any question to which you do not wish to respond. It is estimated to take about 20 minutes to complete the questionnaire and you are urged to complete all sections at one time. The questionnaire is made up of four sections. Section A concerns your perceptions about burnout resulting from your teaching. Section B concerns your desire to work in a less stressful environment. Section C is meant to capture your perceptions about teaching. Aspects of your personal and professional profile are included in section D.

Your participation in this study will not jeopardize your privacy as the responses will be kept completely confidential. There are no known risks associated with your participation than those you ordinarily encounter in daily life.

No other person except the researcher and his advisor will have access to the data. Results will be reported in aggregate so that no individuals are identified. Data will be stored on a password protected computer in the researcher's office under lock and key.

Should you desire to discuss your participation in the study and/or request information about it, you may contact Fred Matofari, PhD candidate and principal investigator, phone 4057620665, email: matofar@okstate.edu; or Dr. M. Craig Edwards, 464 Agricultural Hall, phone 4057448141, email: craig.edwards@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Sheila Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74075, 4057443377 or irb@okstate.edu.

Sincere thanks for your willingness to participate in this research study!

Thank you for your time and consideration.

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor Co-PI and
Academic Advisor

Check appropriately

❍ Yes, I agree to participate in the study
❍ No, not at this time

Section A: Feelings about Work. How do you feel at work? Below are statements that describe the different feelings you may have at work. Please indicate how often, in the last 30 work days, you have experienced each feeling.

	1	2	3	4	5	6	7
1. I feel tired	❍	❍	❍	❍	❍	❍	❍
2. I have no energy for going to work in the morning	❍	❍	❍	❍	❍	❍	❍
3. I feel physically drained	❍	❍	❍	❍	❍	❍	❍
4. I feel fed up	❍	❍	❍	❍	❍	❍	❍
5. I feel like my "batteries" are "dead"	❍	❍	❍	❍	❍	❍	❍
6. I feel burned out	❍	❍	❍	❍	❍	❍	❍
7. My thinking process is slow	❍	❍	❍	❍	❍	❍	❍
8. I have difficulty concentrating	❍	❍	❍	❍	❍	❍	❍
9. I feel I'm not thinking clearly	❍	❍	❍	❍	❍	❍	❍
10. I feel I'm not focused in my thinking	❍	❍	❍	❍	❍	❍	❍
11. I have difficulty thinking about complex things	❍	❍	❍	❍	❍	❍	❍
12. I feel I'm unable to be sensitive to the needs of my colleagues and students	❍	❍	❍	❍	❍	❍	❍
13. I feel I'm not capable of investing emotionally in my colleagues and students	❍	❍	❍	❍	❍	❍	❍
14. I feel I'm not capable of being sympathetic to my colleagues and students	❍	❍	❍	❍	❍	❍	❍

Note. 1 = *Never or almost never*, 2 = *Very infrequently*, 3 = *Somewhat infrequently*, 4 = *Sometimes*, 5 = *Somewhat frequently*, 6 = *Very frequently*, and *7 = Always or almost always*.

Section B: Turnover Intention This section concerns your desire to separate yourself from a stressful work environment. For purposes of this study, it may be the desire to move to a different section, department or faculty within OSU, or move to a different employer. Indicate your level of agreement or disagreement by selecting the opinion that closely matches your position.

15. I am starting to ask my friends/contacts about other job possibilities.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

16. I am thinking about quitting my job.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

17. I intend to leave this section or department or university in the next year.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

18. I often look to see if positions with other sections or departments or employers are open.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

19. I am thinking of contacting a recruiter about other job possibilities.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

Section C: Teaching Perspective Inventory: This inventory will help you identify the *Beliefs*, *Intentions*, and *Actions* that make up your perspectives on teaching and instructing your learners. As you consider the following statements, think of a single, specific teaching situation in which you have important educational or instructional responsibilities. Remember that these statements represent different and contrasting views of teaching. To agree with some of them means you must logically disagree with others. There are no rights or wrong answers.

20. What do you believe about instructing or teaching? For each statement, select the response that best represents your *Agreement* or *Disagreement*

	1	2	3	4	5
1. Learning is enhanced by having predetermined objectives	❍	❍	❍	❍	❍
2.To be an effective teacher, one must be an effective practitioner	❍	❍	❍	❍	❍
3. Most of all, learning depends on what one already knows	❍	❍	❍	❍	❍
4. It is important that I acknowledge learners' emotional reactions	❍	❍	❍	❍	❍
5. My teaching focuses on societal change, not the individual learner	❍	❍	❍	❍	❍
6.Teachers should be virtuoso performers of their subject matter	❍	❍	❍	❍	❍
7.The best learning comes from working alongside good practitioners	❍	❍	❍	❍	❍
8.Teaching should focus on developing qualitative changes in thinking	❍	❍	❍	❍	❍
9. In my teaching, building self-confidence in learners is a priority	❍	❍	❍	❍	❍
10. Individual learning without social change is not enough	❍	❍	❍	❍	❍
11.Effective teachers must first be experts in their own subject areas	❍	❍	❍	❍	❍
12. Knowledge and its application cannot be separated	❍	❍	❍	❍	❍

13. Teaching should build upon what people already know	❍	❍	❍	❍	❍
14. In learning, people's effort should be rewarded as much as achievement	❍	❍	❍	❍	❍
15. For me, teaching is a moral act as much as an intellectual activity	❍	❍	❍	❍	❍

Note. Teaching *beliefs* anchor ratings were: 1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, and 5 = *Strongly agree*.

21. For each of the following, select the response that best represents how OFTEN you set out to accomplish each *intention* when instructing or teaching people.

	1	2	3	4	5
1. My intention is to prepare people for examinations	❍	❍	❍	❍	❍
2. My intention is to demonstrate how to perform or work in real situations	❍	❍	❍	❍	❍
3. My intention is to help people develop more complex ways of reasoning	❍	❍	❍	❍	❍
4. My intention is to build people's self-confidence and self-esteem as learners	❍	❍	❍	❍	❍
5. My intention is to challenge people to seriously reconsider their values	❍	❍	❍	❍	❍
6. I expect people to master a lot of information related to the subject	❍	❍	❍	❍	❍
7. I expect people to know how to apply the subject matter in real settings	❍	❍	❍	❍	❍
8. I expect people to develop new ways of reasoning about the subject matter	❍	❍	❍	❍	❍
9. I expect people to enhance their self-esteem through my teaching	❍	❍	❍	❍	❍
10. I expect people to be committed to changing our society	❍	❍	❍	❍	❍
11. I want people to score well on examinations as a result of my teaching	❍	❍	❍	❍	❍
12. I want people to understand the realities of working in the real world	❍	❍	❍	❍	❍
13. I want people to see how complex and inter-related things really are	❍	❍	❍	❍	❍
14. I want to provide a balance between caring and	❍	❍	❍	❍	❍

challenging as I teach

15. I want to make apparent what people take for granted about society	❍	❍	❍	❍	❍

Note. Teaching *intentions* ratings were: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *usually*, and 5 = *always*

22. For each statement, select the response that best represents how OFTEN you do each *action* when teaching or instructing people.

	1	2	3	4	5
1. I cover the required content accurately and in the allotted time	❍	❍	❍	❍	❍
2. I link the subject matter with real settings of practice or application	❍	❍	❍	❍	❍
3. I ask a lot of questions teaching	❍	❍	❍	❍	❍
4. I find something to compliment in everyone's work or contribution	❍	❍	❍	❍	❍
5. I use the subject matter as a way to teach about higher ideals	❍	❍	❍	❍	❍
6. My teaching is governed by course objectives	❍	❍	❍	❍	❍
7. I model the skills and methods of good practice	❍	❍	❍	❍	❍
8. I challenge familiar ways of understanding the subject matter	❍	❍	❍	❍	❍
9. I encourage expressions of feeling and emotion	❍	❍	❍	❍	❍
10. I emphasize values more than knowledge in my teaching	❍	❍	❍	❍	❍
11. I will make it very clear to people what they are to learn	❍	❍	❍	❍	❍
12. I see to it that novices learn from more experienced people	❍	❍	❍	❍	❍
13. I encourage people to challenge each others' thinking	❍	❍	❍	❍	❍
14. I share my own feelings and expect my learners to do the same	❍	❍	❍	❍	❍
15. I link instructional goals to necessary changes in society	❍	❍	❍	❍	❍

Note. Teaching *actions* ratings were: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *usually*, and 5 = *always*

SECTION D: Personal and professional profile

Please provide the researcher with your personal information by responding to questions under this section. Please select the appropriate options or provide required information by completing the blanks appearing under each item

23. Gender

- ❍ Male
- ❍ Female

24. Nationality

- ❍ U.S citizen
- ❍ Noncitizen

25. Which of the following describes you as a U.S. citizen?

- ❍ Native born
- ❍ Naturalized
- ❍ Permanent Resident
- ❍ Other

26. My age in years

27. My years of university teaching experience in the United States

28. Of the following OSU colleges, indicate yours by selecting one of the options from the drop down menu below

- ❍ College of Arts and Sciences
- ❍ College of Agricultural Sciences and Natural Resources
- ❍ College of Education
- ❍ College of Human Sciences
- ❍ Spears School of Business
- ❍ College of Engineering, Architecture, and Technology
- ❍ College of Veterinary Medicine

29. Tenure status

- ❍ Not on Tenure track
- ❍ Tenure Track
- ❍ Tenured
- ❍ Other/specify _____

30. My job appointment at OSU includes teaching, research, and/or outreach in this percentage ratio

% Teaching
% Research
% Outreach/service

31. This semester, I am teaching the following number of courses in total

	None	One	Two	Three	Four or more
Undergraduate	❍	❍	❍	❍	❍
Graduate	❍	❍	❍	❍	❍

32. This semester, I am teaching the following number of online courses

	None	One	Two	Three or more
Undergraduate	❍	❍	❍	❍
Graduate	❍	❍	❍	❍

33. The following is the total number of students by course levels in all my classes this semester

	Course level 1000	Course level 2000	Course level 3000	Course level 4000	Level 5000 and higher
Number of students					

34. The highest college degree I hold is the

❍ Associate's
❍ Bachelor's
❍ Master's
❍ Doctorate
❍ Other, specify _____

35. Formal preparation for my current job included the following number of college-level teaching/learning (pedagogy and/or andragogy) courses:

	0	1	2	3	4 or more
Number of courses	❍	❍	❍	❍	❍

36. In which year did you take your last sabbatical or extended leave from work?

37. In the space provided, please list the courses you teach (e.g., horticulture, engineering, education, economics, architecture, nutrition, etc.)

Appendix L

First OSU Broadcast Electronic Mail Message

First OSU Broadcast Electronic Mail Message

OSU Broadcast <OSU-BROADCAST@LISTSERV.OKSTATE.EDU>

on behalf of Fredrick Matofari <matofar@OKSTATE.EDU>

Wed 10/30/2013 12:27 PM

To: OSU-BROADCAST@LISTSERV.OKSTATE.EDU;

You forwarded this message on 10/30/2013 12:34 PM.

Invitation to Participate

Dear colleague,
Further to an earlier email message, I hereby invite you to be one of my dissertation research study participants. The is a study of OSU faculty members' teaching perspectives, the extent to which they perceive university teaching to be an exhausting job, and their associated turnover intentions. Burnout and faculty turnover are significant issues at tertiary institutions of higher education. This study will hopefully make a positive contribution in these areas. Your views as a faculty member have no substitute. Participation in this research will in no way violate your privacy. Furthermore, your participation in the survey is voluntary. I urge you to take the next 20 minutes to share your views by responding to the survey questionnaire linked below. Please respond as soon as you can; hopefully *not later than seven days* from today.

Please **click on** the link below to access the survey questionnaire: Take Survey

Or copy and paste the URL below into your Internet browser:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_0V3bQkkCk5ihIep

We look forward to your timely response.

Fredrick N. Matofari

PhD Candidate

Principal Investigator (PI)

Dr. M. Craig Edwards

Professor, Co-PI and Academic Advisor

Appendix M

Final Invitation to Participate

Final Invitation to Participate

Dear colleague,

Further to an earlier email message, I hereby invite you to be one of my dissertation research study participants. The is a study of OSU faculty members' teaching perspectives, the extent to which they perceive university teaching to be an exhausting job, and their associated turnover intentions. Burnout and faculty turnover are significant issues at tertiary institutions of higher education. This study will hopefully make a positive contribution in these areas. Your views as a faculty member have no substitute. Participation in this research will in no way violate your privacy. Furthermore, your participation in the survey is voluntary. I urge you to take the next 20 minutes to share your views by responding to the survey questionnaire linked below. Please respond as soon as you can; hopefully *not later than seven days* from today.

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Or copy and paste the URL below into your Internet browser:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_0V3bQkkCk5ihIep

We look forward to your timely response.

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)

Dr. M. Craig Edwards
Professor
Co-PI and Academic Advisor

Appendix N

Second OSU Broadcast Electronic Mail Message

Second OSU Broadcast Electronic Mail Message

OSU Broadcast <OSU-BROADCAST@LISTSERV.OKSTATE.EDU>on behalf of

Fredrick Matofari <matofar@OKSTATE.EDU>

Wed 11/6/2013 8:30 AM

THANK YOU

Dear Colleague,

We previously sent you an email message requesting your participation in our study. If you have already participated, we thank you most sincerely for your time and input.

If you haven't, we still would like to request your participation. Please follow the link provided below to access our survey questionnaire.

Sincere thanks for your willingness to participate in this research study!

Fredrick N. Matofari

PhD Candidate

Principal Investigator (PI)

matofar@okstate.edu

Dr. M. Craig Edwards

Professor

Co-PI and Academic Advisor

craig.edwards@okstate.edu

Department of Agricultural Education, Communications, & Leadership

Please, **click on** the provided link to access the survey questionnaire: Take Survey

Or copy and paste the URL below into your internet browser:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_0V3bQkkCk5ihIep

Appendix O

Thank You/Reminder

Thank You/Reminder

Dear Colleague,

We previously sent you an email message requesting your participation in our study. If you have already participated, we thank you most sincerely for your time and input.

If you haven't, we still would like to request your participation. Please follow the link provided below to access our survey questionnaire.

Sincere thanks for your willingness to participate in this research study!

Fredrick N. Matofari
PhD Candidate
Principal Investigator (PI)
matofar@okstate.edu

Dr. M. Craig Edwards
Professor
Co-PI and Academic Advisor
craig.edwards@okstate.edu

Department of Agricultural Education, Communications, & Leadership

Please, **click on** the provided link to access the survey questionnaire: Take Survey

Or copy and paste the URL below into your internet browser:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_0V3bQkkCk5ihIep

Appendix P

List of STEM Courses

List of STEM courses

PROGRAM TITLE	CIS TITLE	STEM
Agribusiness - BS	Agriculture Business and Management, General	NO
Agricultural Communications - BS	Agricultural Communication/Journalism	NO
Agricultural Leadership - BS	Agricultural Public Services, Other	NO
Agricultural Education - BS	Agriculture Teacher Education	NO
Agricultural Science & Natural Resources - BS	Agricultural Economics	NO
Animal Science - BS	Animal Sciences, General	**YES**
Biochemistry & Molecular Biology - BS	Biochemistry	YES
Entomology - BS	Entomology	YES
Environmental Science - BS	Environmental Science	**YES**
Food Science - BS	Food Science	**YES**
Horticulture - BS	Horticulture Science	**YES**
Landscape Architecture - BLA	Landscape Architecture	NO
Landscape Contracting - BS	Landscape and Groundskeeping	NO
Natural Resource & Ecology Management - BS	Ecology	YES
Plant and Soil Sciences - BS	Soil Science and Agronomy, General	**YES**
American Studies - BA	American/US/Civilization	NO
Art - BFA/BA	Art/Art Studies, General	NO
Biochemistry - BS	Biochemistry	YES
Biological Science - BS	Biology/Biological Sciences, General	YES
Botany - BS	Botany/Plant Biology	YES
Chemistry - BS	Chemistry, General	YES
Communication Science and Disorders - BS	Speech-Language Pathology/Pathologist	NO
Computer Science - BS	Computer and Information Sciences,	YES

	General	
Economics - BA/BS	Economics, General	NO
English - BA	English Language and Literature, General	NO
French - BA	French Language and Literature	NO
General Studies	General Studies	NO
Geography - BA/BS	Geography	NO
Geology - BS	Geology/Earth Science, General	YES
German - BA	German Language and Literature	NO
History - BA	History, General	NO
Journalism & Broadcasting - BA/BS	Journalism	NO
Liberal Studies - BS/BA	**Liberal Arts and Science/Liberal Studies**	**NO**
Mathematics - BA/BS	Mathematics, General	YES
Microbiology/Cell & Molecular Biology - BS	Microbiology, General	YES
Multimedia Journalism	Journalism, Other	NO
Music - BA/BM	Music, General	NO
Music Ed - BM	Music Teacher Education	NO
Philosophy - BA	Philosophy	NO
Physics - BS	Physics, General	YES
Physiology - BS	Physiology, General	YES
Political Science - BA/BS	Political Science and Government	NO
Psychology - BA/BS	Psychology, General	NO
Russian Language & Literature - BA	Russian Language and Literature	NO
Sociology - BA/BS	Sociology	NO
Spanish - BA	Spanish Language and Literature	NO
Sports Media - BA/BS	Sports Communication	NO
Statistics - BS	Statistics, General	YES
Strategic Communication - BA/BS	Public Relations, Advertising and Applied Communication, Other	NO

Theatre BA/BFA	Drama & Dramatics/Theater Arts, General	NO
Zoology - BS	Zoology/Animal Biology	YES
Accounting - BA/BS	Accounting	NO
Economics - BA/BS	Business Administration and Management, General	NO
Entrepreneurship - BA/BS	Entrepreneurship/Entrepreneurial Studies	NO
Finance - BA/BS	Finance, General	NO
General Business - BA/BS	Business Administration and Management, General	NO
International Business - BA/BS	International Business/Trade/Commerce	NO
Management - BA/BS	Business Administration and Management, General	NO
Management Information Systems - BA/BS	Information Technology	**YES**
Marketing - BA/BS	Marketing/Marketing Management General	NO
Aerospace Engineering - BS	Aerospace, Aeronautical and Astronautical/Space Engineering	**YES**
Architectural Engineering - B ARCH E	Architectural Engineering	YES
Architecture - B ARCH	Architecture	NO
Biosystems Engineering - BS	Agricultural Engineering	YES
Chemical Engineering - BS	Chemical Engineering	YES
Civil Engineering - BS	Civil Engineering, General	YES
Computer Engineering - BS	Computer Engineering, General	YES
Construction Management Technology - BS ENG TECHY	Construction Engineering Technology/Technician	YES
Electrical Engineering Technology - BS ENG TECHY	Electrical, Electronics, and Comm. Engineering Tech./Technical	YES
Electrical Engineering - BS	Electrical and Electronics Engineering	YES
Fire Protection & Safety Technician - BS ENG TECHY	Fire Protection and Safety Technology/Technician	NO
Industrial Engineering & Management -	Industrial Engineering	YES

BS		
Mechanical Engineering - BS	Mechanical Engineering	YES
Mechanical Engineering Technology - BS ENG TECHY	Mechanical Engineering/Mechanical Tech/Technician	YES
Aerospace Administration & Operations	Aeronautics/Aviation/Aerospace Science and Technology, General	YES
Athletic Training - BS	Athletic Training/Trainer	NO
Career & Technology Education - BS	Technical Teacher Education	NO
Education - BS	Education, General	NO
Elementary Education - BS	Elementary Education and Teaching	NO
Health Education & Promotion - BS	Public Health Education and Promotion	NO
Leisure Studies - BS	Parks, Recreation, and Leisure Studies	NO
Physical Education -BS	Physical Education Teaching and Coaching	NO
Recreation Management and Therapeutic Recreation - BS	**Parks, Recreation, and Leisure Studies**	**NO**
Secondary Education - BS	Secondary Education and Teaching	NO
Design, Housing & Merchandising - BS	Housing and Human Environments, General	NO
Hotel & Restaurant Administration - BS	Hospitality Administration/Management, General	NO
Human Development/Family Science - BS	Human Development, Family Studies, General	NO
Nutrition Science - BS	Foods, Nutrition, and Wellness Studies	NO

PROGRAM TITLE	CIS TITLE	STEM
Accounting	Accounting	NO
Agricultural Communications	Agricultural Communications/Journalism	NO
Agricultural Economics	Agricultural Economics	NO
Agricultural Education	Agricultural Teacher Education	NO
Agriculture (General Agriculture)	**General Agriculture**	**NO**
AG - Agribusiness	Agribusiness/Agricultural Business Operations	NO
AG - Agricultural Economics	Agricultural Economics	NO
AG - Agricultural Education	Agricultural Teacher Education	NO
AG - Agricultural Leadership	Agricultural Public Services, other	NO
AG - Animal Science	Animal Science, General	YES
AG - Entomology	Entomology	YES
AG - Horticulture	Horticulture Science	**YES**
AG - International Agriculture	International Agriculture	NO
AG - Natural Resources Ecology and Management	Ecology	YES
AG - Plant Pathology	Plant Pathology/Phtyopathology	YES
AG - Plant Science	Botany/Plant Biology	YES
AG - Soil Science	Soil Sciences, Other	**YES**
Animal Science	Animal Science, General	YES
Applied Educational Studies (AEST)	**School Psychology**	**NO**
AEST - Aviation and Space Education	Aeronautics/Aviation/Aerospace Sciences and Technology, General	**YES**
AEST - College Interdisciplinary	Education, General	NO
Art History	Art History, Criticism and Conservation	NO
Aviation and Space	Aeronautics/Aviation/Aerospace Sciences and Technology, General	YES
Biochemistry and Molecular Biology	Biochemistry	YES
Biomedical Science HSC	Biomedical Sciences, General	YES
Biosystems and Agricultural	Agricultural Engineering	YES

Engineering		
Botany	Botany/Plant Biology	YES
Business Administration (MS) (BADM)	**Business Administration and Management, General**	**NO**
BADM (PhD) - Accounting	Accounting	NO
BADM (PhD) - Entrepreneurship	Entrepreneurship/Entrepreneurial Studies	NO
BADM (PhD) - Executive Research	Business Administration, Management Operations, Other	NO
BADM (PhD) - Finance	Finance, General	NO
BADM (PhD) - Management	Management Science	YES
BADM (PhD) - Mgmt. Science and Information Systems	Management Science	YES
BADM (PhD) - Marketing	Marketing/Management, General	NO
Business Geographics	Geography, other	NO
Chemical Engineering	Chemical Engineering	YES
Chemistry	Chemistry, General	YES
Civil Engineering	Civil Engineering, General	YES
Communication Sciences and Disorders	Speech - Language Pathology/Pathologist	NO
Computer Science	Computer and Information Sciences, General	YES
Counseling (COUN)	**Counselor Education/School Counseling and Guidance Services**	**NO**
COUN - Community Counseling	Counselor Education/School Counseling and Guidance Services	NO
COUN - School Counseling	Counselor Education/School Counseling and Guidance Services	NO
Creative Writing	Creative Writing	NO
Crop Science	Agronomy and Crop Science	YES
Design, Housing and Merchandising	Housing and Human Environments, General	NO

(DHM)		
DHM - Apparel Design and Production	Housing and Human Environments, General	NO
DHM - Interior Design	Housing and Human Environments, General	NO
DHM - Merchandising	Housing and Human Environments, General	NO
Economics	Business/Managerial Economics	NO
Education EDUC	**Education, General**	**NO**
EDUC - School Psychology	Education, General	NO
EDUC - Curriculum Studies	Education, General	NO
EDUC - Educational Technology	Educational Institutional Technology	YES
EDUC - Occupational Ed. Studies	Education, General	NO
EDUC - Professional Ed. Studies	Education, General	NO
EDUC - Social Foundations of Education	Education, General	NO
Educational Leadership and Policy Studies	**Educational Leadership and Admin. General**	**NO**
ELPS - Educational Administration	Educational Leadership and Admin. General	NO
ELPS - Higher Education	Educational Leadership and Admin. General	NO
Educational Leadership Studies	**Educational Leadership and Admin. General**	**NO**
ELS - College Student Development	Educational Leadership and Admin. General	NO
ELS - Higher Education	Educational Leadership and Admin. General	NO
ELS - School Administration	Educational Leadership and Admin. General	NO
Educational Psychology (EPSY)	**School Psychology**	**NO**
EPSY - Educational Psychology	School Psychology	NO
EPSY - Educational Research and Evaluation	School Psychology	NO

EPSY - School Psychometrics	School Psychology	NO
EPSY - Counseling Psychology	School Psychology	NO
EPSY - Educational Psychology	School Psychology	NO
EPSY - Research and Evaluation	School Psychology	NO
EPSY - School Psychology	School Psychology	NO
Educational Technology	**Educational/Instructional Technology**	**YES**
EDTC - Educational Technology	Educational/Instructional Technology	**YES**
EDTC - School Library Media	Educational/Instructional Technology	**YES**
Electrical Engineering (ELEN)	Electrical and Electronics Engineering	YES
ELEN - Control Systems	Electrical and Electronics Engineering	YES
ELEN - Optics and Photonics	Optics/Optical Sciences	YES
Electrical Engineering	Electrical and Electronics Engineering	YES
Engineering and Technology Management	Engineering/Industrial Management	YES
English	English Language and Literature, General	NO
Entrepreneurship	Entrepreneurship/Entrepreneurial Studies	NO
Entomology (PhD)	Entomology	YES
Entomology and Plant Pathology	Entomology	YES
Environmental Engineering	Environmental/Environmental Health Engineering	YES
Environmental Science (ENSI)	Environmental Science	YES
Fire and Emergency Management Administration	Fire Services Administration	NO
Food Science	Food Science	YES
Forensic Sciences HSC	Forensic Science and Technology	YES
Geography	Geography, General	NO
Geology	Geology/Earth Science, General	YES
Health and Human Performance (HHP)	Health and Physical Education, General	NO
HHP - Athletic Training	Health and Physical Education, General	NO
HHP - Applied Exercise Science	Health and Physical Education, General	NO
HHP - Health Promotions	Health and Physical Education, General	NO

HHP - Physical Education	Health and Physical Education, General	NO
Health , Leisure and Human Performance (HLHP)	Health and Physical Education, General	NO
HLHP - Health and Human Performance	Health and Physical Education, General	NO
HLHP - Leisure Studies	Health and Physical Education, General	NO
Higher Education	Higher Education, Higher Education Administration	NO
History	History, General	NO
Horticulture	Horticultural Science	YES
Hospitality Administration	Hospitality Admin/Mgmt, General	NO
Human Development and Family Science (HDFS)	Human Development and Family Studies, General	NO
HDFS - Early Childhood Education (And Dual BS/MS Applicants)	Human Development and Family Studies, General	NO
HDFS - Marriage and Family Therapy	Human Development and Family Studies, General	NO
HDFS - Gerontology (on-campus program)	Human Development and Family Studies, General	NO
Human Sciences	Family and Consumer Science/Human Science	NO
HS - Family Financial Planning	Business Family and Consumer Sciences/Human Sciences	NO
HS - Design, Housing and Merchandising	Housing and Human Environments, General	NO
HS - Hospitality Administration	Hospitality Administration/Management, General	NO
HS - Human Development and Family Science	Human Development and Family Studies, General	NO
HS - Nutritional Sciences	Foods, Nutrition, and Wellness Studies, General	NO
Industrial Engineering and Management	Industrial Engineering	YES

Interdisciplinary Sciences (IDS)	Natural Sciences	NO
IDS - Aviation and Space Science	Aeronautics/Aviation/Aerospace Science and Technology General	YES
IDS - Health Care Administration (HCA)	Health/Health Care Administration/Management	NO
International Studies	International/Global Studies	NO
Leisure Studies	Parks, Recreation and Leisure Studies	NO
Management Information Systems	Information Technology	YES
Mass Communications	Mass Communication/Media Studies	NO
Mathematics	Mathematics, General	YES
Mechanical and Aerospace Engineering	Mechanical Engineering	YES
Microbiology, Cell and Molecular Biology	Microbiology, General	YES
Natural Resource Ecology and Mgmt	Ecology	YES
NREM - Fisheries and Aquatic Ecology	Ecology	YES
NREM - Forest Resources	Ecology	YES
NREM - Rangeland Ecology and Management	Ecology	YES
NREM - Wildlife Ecology and Management	Ecology	YES
Nutritional Sciences	Foods, Nutrition, and Wellness Studies, General	NO
Pedagogy and Performance (PEDP)	Music General	NO
Philosophy	Philosophy	NO
Photonics	Optics/Optical Sciences	YES
Physics	Physics, General	YES
Plant and Soil Sciences	Soil Science and Agronomy, General	YES
Plant Pathology	Plant Pathology/Phytopathology	YES
Plant Science	Botany/Plant Biology	YES
Political Science	Political Science and Government, General	NO
Psychology (PSYC)	Psychology, General	NO

Quantitative Financial Economics	Financial Mathematics	YES
School Administration	Educational Leadership and Administration, General	NO
Sociology	Sociology	NO
Soil Science	Soil Sciences, Other	YES
Statistics	Statistics, General	YES
Teaching, Learning and Leadership (TLL)	Curriculum and Instruction	NO
TLL - Curriculum and Leadership Studies	Curriculum and Instruction	NO
TLL - Elem/Middle/Secondary Ed/K12 Ed	Curriculum and Instruction	NO
TLL - Mathematics/Science Ed	Curriculum and Instruction	NO
TLL - Occupational Education Studies	Curriculum and Instruction	NO
TLL - Reading and Literacy	Curriculum and Instruction	NO
TLL - Special Education	Curriculum and Instruction	NO
Telecommunication Management	Computer Systems Networking and Telecommunications	YES
Theater	Drama and Dramatics/Theatre Arts, General	NO
Veterinary and Biomedical Science	Veterinary Sciences/Veterinary Clinical Sciences, General	NO
Zoology	Zoology/Animal Biology	YES
Aerospace Security	Aviation/Airway Management and Operations	
Biobased Products and Bioenergy	Agricultural Engineering	
Bioinformatics	Biochemistry	
Business Data Mining	Marketing/Marketing Management	
Engineering and Technology Management	Engineering/Industrial Management	
Global Issues	International/Global Studies	
Information Assurance	Computer and Information System Security/Information Assuranc	
Online Teaching	Educational/Instructional Technology	

Teaching English to Speakers of Other Languages	Teaching English as a Second Language
University Faculty Preparation	Educational, Instructional Curriculum

Appendix Q

The Relationships between Participants' Teaching Perspectives and Their Job Turnover Intentions

The Relationships[a] between Participants' Teaching Perspectives and Their Job Turnover Intentions (N = 157)

Teaching Perspective	Job Turnover Intention
Transmission	0.01
Apprenticeship	-0.17
Development	0.09
Nurturing	0.01
Social reform	-

Note: [a]Spearman rho (ρ) correlation coefficients

Appendix R

The Relationships between Participants' Job burnout and Their Job Turnover Intentions

The Relationships between Participants' Job burnout and Their Job Turnover Intentions (N = 157)

Job Burnout	Job Turnover Intention
Physical exhaustion	0.56*
Cognitive exhaustion	0.39*
Emotional exhaustion	0.36*
Job Burnout	0.55*

Note: *Spearman rho (ρ) correlation coefficients significant at the 0.05 level

Appendix S

Evidence of the Selective Role of Job Burnout as a Mediating Variable between Key Attributes of Teaching Perspectives and Job Turnover Intentions

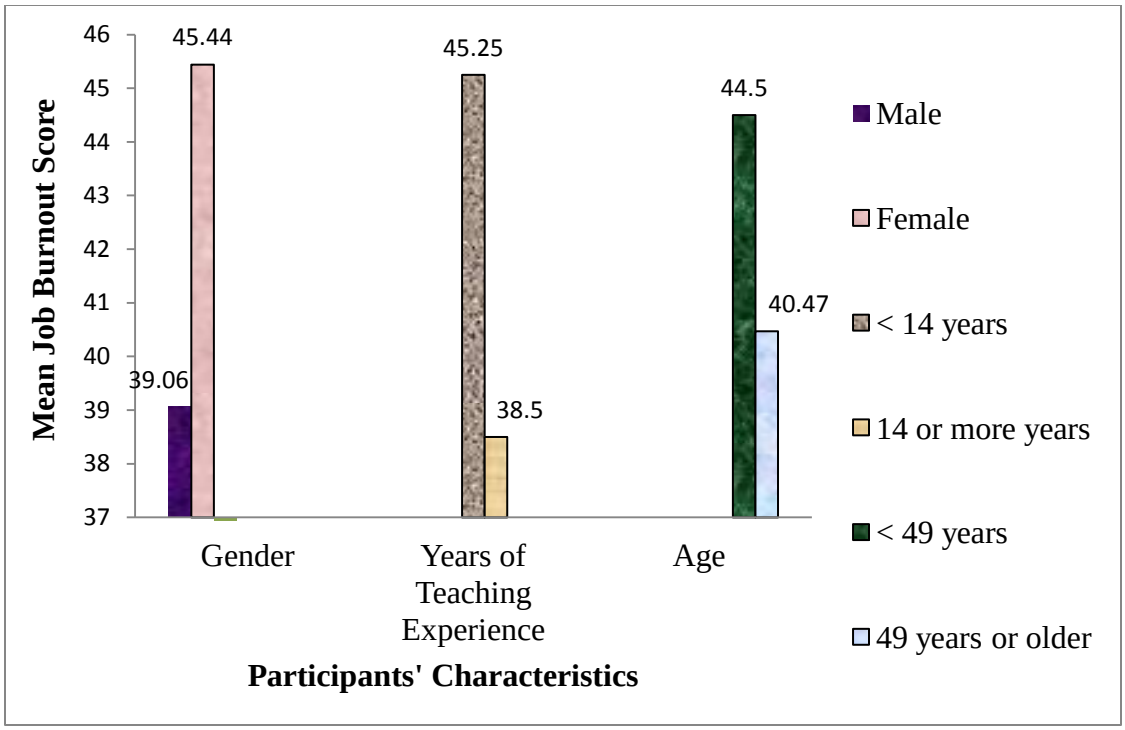
Evidence of the Selective Role of Job Burnout as a Mediating Variable between Key Attributes of Teaching Perspectives and Job Turnover Intentions

Respondents	Attributes[a]		Constant	Unstandardized weights		Standard Error		Sobel test	Standardized weights		Effect size
		f	*a*	β_a	β_b	S_a	S_b	*p*	β_a	β_b	R^2
All	Beliefs; PE as mediator	155	5.057	0.219	0.360	0.101	0.044	0.035*	-0.031	0.560	0.31
Transmission[b]	Beliefs	52	-1.693	0.462	.165	0.354	0.038	0.000*	0.145	0.521	0.32
Years of teaching	Beliefs	74	8.785	0.575	0.162	0.298	0.038	0.079	-0.09	0.461	0.20
STEM[c]	Beliefs	51	2.428	1.211	0.183	0.394	0.394	0.011*	0.020	0.573	0.34

Note. *Significant at α = .05. [a]Except for teaching *beliefs*, teaching *intentions* and *actions* did not yield viable models with job burnout as the mediator variable. [b]Respondents for whom *transmission* was their teaching perspective. [c]Respondents who taught science, technology, engineering, and math courses.

Appendix T

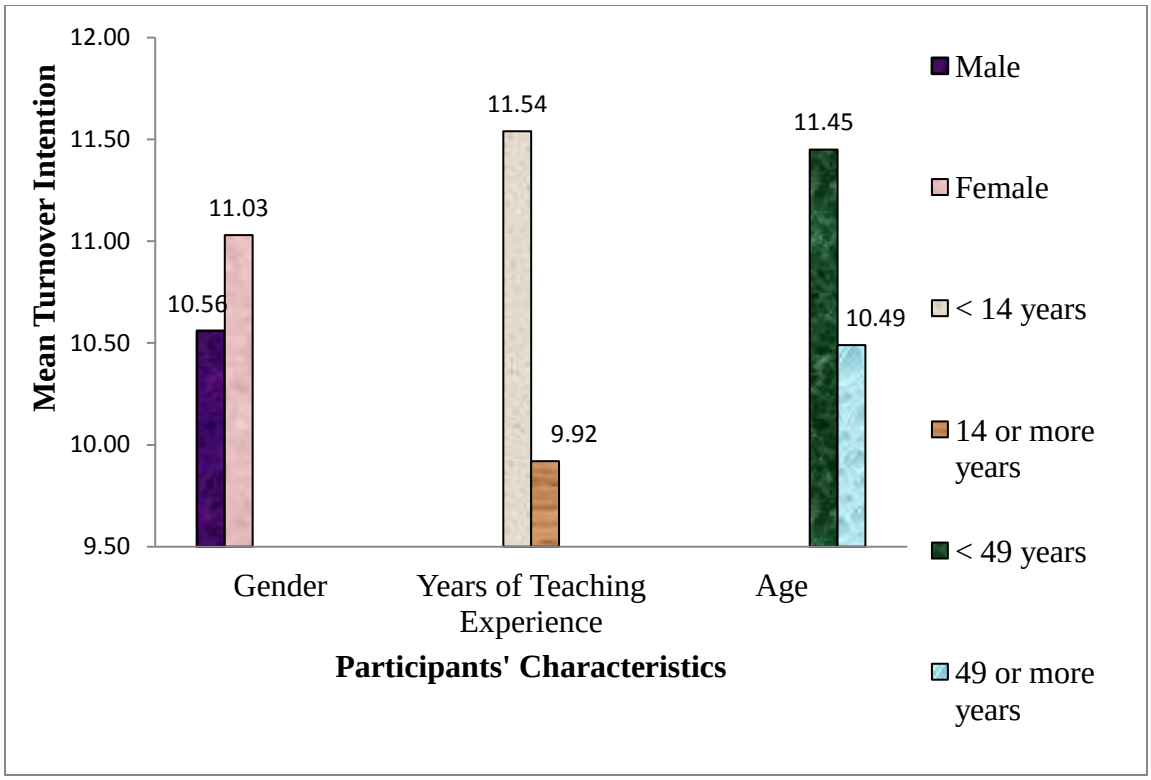
Participants' Job Burnout Scores by Selected Personal Characteristics



Participants' job burnout scores by selected personal characteristics. All scores in the range 21.00 to 34.99 represented participants who perceived job burnout *somewhat infrequently* based on the SMBM scale. Differences in perceived job burnout based on years of university teaching were significant, $t_{147} = -2.659$ ($p = 0.009$). Differences in means by gender and age were not significant.

Appendix U

Participants' Job Turnover Intention Scores by Selected Personal Characteristics



Participants' job turnover intention scores by selected personal characteristics. Participants who had fewer than 14 years of college teaching experience perceived significantly (t_{151} = -2.008, p = 0.046) higher job turnover intentions (M = 11.54) than those whose teaching experience was more than 14 years (M = 9.92). Even though differences in perceived job turnover intention by gender were not statistically significant (t_{153} = -.573, p = 0.567), the level of job turnover intention among female participants with less than 14 years of teaching experience was probably considerable.

VITA

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