

**TEACHER MENTAL HEALTH: THE RELATIONSHIPS BETWEEN PHILOSOPHIES
OF HAPPINESS, EMOTIONS AND INDICATORS
OF PSYCHOLOGICAL WELLNESS**

by

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DEDICATION

This dissertation is dedicated to my dear mother. Thank you for always singing the words “can do” in your lovely alto voice when I told you I was struggling. Thank you also for telling me that I would one day move mountains. I do not know if I have made such a mark on the world, but I have always done the best with what I had, just like you taught me. I am trying to leave this world better than I found it. That is why I wrote this dissertation. I will always be in your debt.

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Teaching primary and secondary students can be a fulfilling career helping children learn and grow. However, teachers also experience stress, anxiety and negative emotions that make it difficult to maintain their psychological wellness. Their stress, anxiety and negative emotions come from, among other things, the pressure for students to perform on standardized tests, student misbehavior, emotional labor from showing empathy and processing the trauma of others. Up until the mid-1980's research on teacher psychological wellness focused on reducing teacher stress and anxiety. Since then, some researchers have reframed teacher psychological wellness as the fulfillment of psychological needs for relatedness (relationships with other people), competency and autonomy.

This dissertation examines the results of a quantitative study to uncover the relationship between teachers' philosophies of happiness, emotions and indicators of psychological wellness defined as the fulfillment of basic psychological needs. The study involved a survey administered to Kindergarten to 12th grade teachers from one urban school district in Texas. The survey included items from a variety of psychological scales to measure the following 10 constructs: teachers' philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological), emotions (anger, anxiety and satisfaction) and indicators of psychological

wellness (relatedness, autonomy and competency). The study also involved structural equation modeling to determine the relationships between constructs. This structural equation modeling revealed complex relationships between constructs that in some cases conflicted with what existing theories say should be the nature of these connections. Chapters 4 and 5 of the dissertation discuss those unexpected results.

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CHAPTER ONE: INTRODUCTION

Teaching primary and secondary students can be a fulfilling career. Teachers who find fulfillment in their work hear the first period bell and feel a rush of excitement to see their students. They cannot wait to see the looks of excitement on their students' faces and hear their laughter. They also cannot wait to show their students that they care. Most important, teachers who find fulfillment in their work look forward to seeing their students' grow and develop. To these teachers, the classroom is a workshop where life and learning occur in a way that prepares their students to eventually become productive and enlightened women and men.

However, teaching a school day can also be difficult. When some primary and secondary school teachers hear the first period bell, they know that shouting and banging lockers will soon shatter the meditative hum of classroom projectors and the methodical ticking of the clock. It is when many teachers' breathing shallows, blood pressure rises and minds race. It is also the point at which many teachers realize that their meticulous lesson plans may not meet every student's needs and that disruptions from colleagues and parents will force them to make continuous and frustrating adjustments. Furthermore, it is the time when teachers plan how to manage verbal and physical altercations, which can erupt without warning and put them in physical danger. Most important, the first period bell is when teachers realize that they will be the only adult in their classroom for 8 hours managing a classroom of 20 or more children.

One risk to teachers in this stressful work environment is dissatisfaction with teaching. For instance, from a sample size of 38,870 teachers, Moore (2012) found that 15.5% of educators nationwide were moderately to very dissatisfied with their jobs. She argues that teacher dissatisfaction stems from poor school environments (Moore, 2012). Depression is another risk to teachers in this stressful work environment. For example, in a study of 267 teachers using

pathway analysis, Steinhardt, Jaggars, Faulk and Gloria (2011) found a statistically significant relationship between stress and depressive symptoms. Furthermore, these researchers demonstrate that emotional exhaustion increased the effect of stress on depressive symptoms, arguing that schools should prevent teachers from enduring prolonged periods of stress (Steinhardt et al., 2011).

Dissatisfaction and depression are not the destiny of all teachers. Some teachers, by contrast, develop strength and resilience as they persevere through these stressors, enabling them to find contentment in their work. For example, in a pilot study involving 38 teachers, Austin, Shah and Muncer (2005) documented a variety of positive coping mechanisms such as exercise and deep breathing that teachers use to manage their stress. Furthermore, these researchers determined that teachers who used these positive coping mechanisms were more likely to have less stress. These teachers were also less likely to engage in destructive behaviors such as lashing out at their peers (Austin et al., 2005). In addition, De Stercke, Goyette and Robertson (2015) describe how some teachers use mindfulness to cope with stress. They explain that mindfulness is a practice rooted in Buddhist philosophy that involves focused attention during meditation on feelings of compassion and kindness. This Buddhist meditation philosophy creates wellbeing and happiness.

This dissertation will demonstrate that teachers' tendency to develop dissatisfaction, anxiety and depression or resilience and perseverance depends on a system of malleable beliefs about happiness that are associated with different emotions and indicators of psychological wellness. Changing beliefs about happiness could increase the propensity for resilience and perseverance. However, changing these beliefs and the emotions they generate requires

understanding of the relationship between philosophies of happiness, emotions and indicators of psychological wellness relate to each other.

Purpose of this Study

The purpose of this study was to understand the relationship between teachers' philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological), emotions (anger, anxiety and satisfaction) and indicators of psychological wellness (relatedness, autonomy and competency). The researcher defines psychological wellness as the fulfillment of basic psychological needs. The study focuses on Texas, which has a high percentage of residents under the age of 18, number of operating school districts and public-school enrollment (National Education Association, 2016). Furthermore, the state ranked low out of 50 states in the quality of public K-12 education, according to U.S. News and World Report. Because this state has a poorer relative quality of education and low-performing schools create teacher stress, teachers there should struggle more than average with psychological wellness (Loeb, Darling-Hammond, & Luczak, 2009; Hanushek, 2002).

Therefore, this study will ultimately answer the following research question:

- What are the relationships between teachers' philosophical beliefs about happiness, emotions and indicators of psychological wellness?

Understanding the relationships between teachers' philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological), emotions (anger, anxiety and satisfaction) and indicators of psychological wellness (relatedness, autonomy and competency) could help teachers increase their wellness. Teachers could see these constructs as malleable and, through reflection and evolution of thought and belief, transform their experiences of stress. For example, teachers who espouse a philosophy of happiness that generates negative emotions during

stressful situations could reevaluate and modify their beliefs for the sake of their career and psychological wellness. Furthermore, understanding this relationship could help school district leaders and principals train teachers to identify their philosophies of happiness and how they manifest in stressful situations.

The Need for Understanding Teacher Psychological Wellness

Understanding teacher psychological wellness could help educators and their administrators respond to corrosive stress in the classroom with behaviors that promote wellness, especially early in teachers' careers. Teachers experience this corrosive stress due in part to what Hochschild (1996) and Schutz and Lee (2014) refer to as emotional labor. Emotional labor occurs when teachers follow display rules that require them to exhibit one set of emotions while actively suppressing their true feelings (Schutz & Lee, 2014). For instance, schools could expect their educators to speak gently to misbehaving children despite teachers' anger and frustration. Because of these emotional display rules, teachers can experience emotional dissonance that over time generates exhaustion and physical health problems (Schutz & Lee, 2014).

However, teacher emotional labor also involves efforts to feel and show genuine emotion that help teachers develop relationships with students and experience joy and fulfillment in the workplace (Naring, Briet, & Brouwers, 2006; Hagenauer, Hascher, & Volet, 2015). For example, teachers must develop and exhibit care for diverse students to help build the relationships of trust necessary to drive student motivation. In addition, teachers must switch between display and genuine feelings quickly as situations in their classrooms change. For instance, teachers must display disappointment and disapproval in one moment toward troublemakers and transform quickly into nurturers toward traumatized students. Chang (2009) calls this constant switching

between feelings emotional work. This emotional work can be exhausting and therefore create negative stress for teachers.

Thoits (2010) demonstrates that negative stress has a corrosive effect that can damage overall psychological and physical health. This researcher also shows that stress can over time increase risk of physical injury and incidence of psychiatric disorders. Vandenberghe et al. (1999) indicate that chronic negative stress can also over time lead to burnout. Burnout—a term that emerged in the 1970's referring originally to overworked social workers—is the point at which people's prolonged exposure to stress wears down their ability to cope and starts to cause problems in their lives (Vandenberghe et al., 1999). Some researchers have explored the impact of school culture on burnout. For instance, more student behavior problems and lack of administrative support and make it more likely that teachers become overwhelmed by stress (Grayson & Alvarez, 2008). Other researchers have found that teachers with more self-efficacy have lower levels of burnout, because self-efficacy decreases the likelihood that stress will overwhelm their coping mechanisms. Self-efficacy is a person's belief in their ability to make a difference in something by their own actions (Brouwers & Tomic, 2000).

This stress and burnout is especially ruinous for the professional lives of teachers, because it can force educators to choose between staying to capitalize on their education, training and experience or leaving the profession to preserve their physical and psychological health. According to Brunsting, Sreckovic and Lane (2015), this stress and chronic burnout are major factors in teachers' decisions to quit their profession. Boe, Cook and Sunderland (2008) report that as many as 38% of teachers nationwide leave the teaching profession within the first five years of their career. They also report an overall nationwide annual teacher attrition rate of 15%, compared to the 11% average in other professions. Furthermore, the United States Department of

Education's National Center for Education Statistics conducted a longitudinal nationwide study from 2007 to 2011 that determined that from 2007 to 2011, teacher attrition grew from 10% to 17% per year (United States Department of Education, National Center for Education Statistics 2015). Teacher turnover is seven points higher—19% versus 26%--in urban schools as compared to suburban and rural areas (Ingersoll & Perda, 2009).

Teacher turnover has serious negative impacts on the overall education system. First, teacher turnover has left district and school administrators scrambling to fill teaching positions with smaller candidate pools (Ingersoll & Strong, 2011). As a result, school districts and schools facing shortages often hire less qualified teachers whose students perform relatively poorly on standardized tests (Ingersoll, 2002). Poor academic performance then generates persistent academic achievement gaps between districts and schools with differing supplies of qualified teachers. In addition, according to the Alliance for Excellent Education's 2014 report entitled "On the Path to Equity: Improving the Effectiveness of Beginning Teachers," teacher attrition costs the United States \$2.2 billion every year. The public accrues these costs through recruitment and retention efforts and from having to train a new cohort of teachers each year (Alliance for Excellent Education, 2014).

The stress, emotional labor and burnout that cause teachers to quit their jobs are exacerbated by working conditions in schools. For instance, Loeb et al. (2005) and others indicate that poor administrative support and facilities, micro-management, resource scarcity, large class sizes and punitive standardized tests all generate stress that increases teacher turnover. In addition, Hughes (2012) demonstrate that workplace conditions such as poor classroom control and student misbehavior are strong predictors of teacher turnover. Teacher stress and turnover even result from worries over personal finances. For example, Guarino, Santibanez and

Daley (2006) review several studies that indicate that decreases in salary, e.g. from budget cuts, are associated with less teacher retention. One of these studies even demonstrated that a decrease in pay of \$1,000 could shorten the length of a teacher's career by up to three years (Guarino et al., 2006). Other researchers demonstrate that teacher retention decreases in competitive labor markets due to educator salaries that are low relative to other sectors of the labor economy (Stinebrickner, 2002; Guarino et al. 2006; Hanushek & Rivkin, 2007).

Teacher stress and turnover finally increases due to poor training and mentorship. For instance, Guarino et al. (2006) and others indicate that turnover is highest among teachers that have the least training and mentorship. They argue that teachers who receive training and mentorship decide to stay at their schools, because their higher-level skills make them more self-sufficient in the classroom (Guarino et al., 2006; Ingersoll & Strong, 2011). Johnson et al. (2004), last of all, argue that poor training causes uncertainty and an inability to respond effectively to student misbehavior. This uncertainty and poor student behavioral outcomes cause stress, which contributes to teacher turnover (Johnson et al., 2004).

In conclusion, the factors that contribute to teacher stress are numerous and, in some cases, out of teachers' control. Therefore, school leaders, district administrators and policy makers must whenever possible change these factors to reduce teacher stressors. However, this study assumes that teachers can change the way they view and respond to stress. For example, teachers could reflect upon the mental frameworks relating to their experience of stress. In this study these frameworks are teachers' philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological), emotions (anger, anxiety and satisfaction) and indicators of psychological wellness (relatedness, autonomy and competency) will demonstrate.

Socio-Historical Context of Teacher Psychological Wellness

Contemporary research on teacher psychological wellness began in the United States in 1978 when the Chicago Teachers Union conducted a landmark survey on teacher stress involving 5,000 respondents (Sparks & Hammond, 1981). The Chicago Teachers Union administered this survey during their decline after over 40 years since the New Deal fighting for better teacher pay and working conditions. The union's influence declined because of public disdain for strikes and the increased prominence of neoliberalism. Unlike unionists, neoliberals viewed education as a business as opposed to a public good, which contributed to the growing perception of teachers as replaceable parts in an economic machine (Shelton, 2017).

When the Chicago Teachers' Union conducted its survey in 1978, 14 years had passed since the United States Supreme Court's ruling against school segregation in *Brown vs. the Board of Education* (Danns, 2014). Besides requiring school integration, this court decision created the necessity for schools and teachers to fight racism. In addition, 14 years had passed since President Johnson waged the nation's War on Poverty which gave birth one year later to the Elementary and Secondary Education Act. President Johnson signed the Elementary and Secondary Education Act to close academic achievement gaps between different demographics of students (Mendez, Yoo, & Rury, 2017). Therefore, the Elementary and Secondary Education Act signaled that teachers should not only be purveyors of knowledge, but also eradicators of social and educational inequities.

When the Chicago Teachers Union administered its survey in 1978, only a few years had passed since the United States Government passed the following pieces of legislation: Title IX (1972), the Equal Opportunities Act (1974) and the Rehabilitation Act (1973). Title IX provided new protections against discrimination based on sex. The Equal Opportunities Act provided

protections against discrimination based on social categories such as limited English proficiency. The Rehabilitation Act and its successor the Education for All Handicapped Children Act mandated protections in addition to a free and adequate education for children with disabilities (Mendez et al., 2017). These new social protections created the responsibility for teachers to provide an equitable education for more marginalized groups. Moreover, the new laws developed metrics over time to hold schools accountable for providing this equitable education. Accountability metrics created an awesome responsibility for teachers to serve marginalized students, but also stress-inducing demands on teachers' their time and effort.

Chicago teachers responded to these stress-inducing demands by organizing teacher strikes in 1973 and 1975, which lasted approximately 10 days each. These teacher strikes resulted in higher teacher pay and smaller classroom sizes (Catalyst Chicago, 2001). However, these strikes did not eliminate increasing demands to teachers' time and effort that these new educational equity laws required. Furthermore, these strikes did little to ameliorate the stress teachers experienced when attempting to create social harmony and educational equity during desegregation.

By 1978, Chicago public schools had spent 13 years desegregating schools with varying degrees of success due in part to geography. Predominantly white schools were located far from black neighborhoods starting in the 1950's, because white families fled Chicago's black inner city for the suburbs. As a result, Chicago schools desegregated by transporting black students over long distances to predominantly white schools, severing them from their local communities. However, a greater challenge involved public resistance to integration. Some resisters even foolishly denied the existence of educational inequity and attributed differences in academic

achievement to students' poor motivation. Only by 1979 did most Chicago schools integrate, albeit to varying degrees (Danns, 2014).

These rapid political and social changes generated teacher stress that encouraged the Chicago Teachers' Union in 1978 to create and administer its landmark survey. This survey was so important that early studies in the 1980's on teacher burnout cited the Chicago Teachers Union Teacher Stress Survey for many years to justify their research (Cardinell, 1980; Holland, 1982; Johnson & Richards, 1983). The Chicago Teachers Union's survey measured the change in teachers' stress during the decade of new progressive policies. In the end, the survey uncovered the following four main stressors that affected teachers' mental wellbeing: student behavioral problems, low achievement, concerns for physical safety and overcrowded classrooms (Sparks & Hammond, 1981).

These survey findings were important for two main reasons. First, the findings officially acknowledged the challenges that society gave teachers to carry out social policy priorities. New social policies problematized low student achievement and pushed teachers to eliminate racial and economic inequities. Second, the survey findings inspired future studies on teacher stress and wellness such as the National Education Association's (NEA) nation-wide teacher survey. The NEA, for instance, found that one in 20 teachers had experienced an assault, which was a 57% increase from the year before (Sparks & Hammond, 1981).

However, the first explicit reference to teacher wellness does not appear in scholarly literature until 1987 in the context of school improvement. Lohrmann and Zimmerli (1987) explain how concern over teacher wellness originated in 1983 from 30 nationwide and 300 statewide reports on the quality of secondary education. Many of these reports recommended efforts to increase teacher wellness to help improve school performance. Focusing on teacher

wellness for school improvement seemed logical, given what researchers knew at the time about teacher stress and burnout. For instance, Farber (1982) and others had already discovered a negative relationship between teacher burnout and motivation. When teachers experience stress and burnout, they lose motivation to plan lessons well and develop positive relationships with students.

After Lohrmann and Zimmerli's (1987) article, the term teacher wellness appears again in scholarly literature a decade later. However, researchers began defining the concept of teacher wellness as the absence of stress and burnout. These researchers instead framed teacher wellness as meeting psychological needs. For instance, Black-Branch and Lamont's (1998) research on teacher preparation programs creates a framework for people to reflect upon whether the teaching profession is a good match for their personalities and temperaments. Another decade then passed before the concept of teacher wellness emerged again in scholarly literature. Lau, Chan, Yuen and Meyers (2008) argued that past research on teacher wellness had focused too narrowly on stress and burnout, which is deficit-based and pathological. They advocate instead for a focus on teacher strengths and assets to improve teacher health (Lau et al., 2008).

The gradual shift from a focus on teacher stress and burnout to strengths and assets has come at a critical point in the history of the teaching profession for two reasons. First, teachers endure more pressure from high stakes testing on them now than in the past due to the No Child Left Behind Act (NCLB). President George W. Bush signed NCLB in 2001 to hold schools accountable for low performance on standardized tests (Dee & Jacob, 2011). Moreover, this pressure has arguably increased due President Obama's 2015 Every Student Succeeds Act (ESSA). The ESSA expanded measurement of student success from only standardized tests to include a variety of metrics (Cook-Harvey, Darling-Hammond, Lam, Mercer, & Roc, 2016).

This expansion could create confusion for teachers' efforts to improve their teaching if different metrics show divergent results and more work for educators as they create interventions to improve their scores on multiple dimensions of performance.

Shifting from a focus on teacher stress and burnout to strengths and assets could be one major necessary component to change the way teachers view and experience the challenges that come their way in the education profession. For instance, teachers who follow Black-Branch and Lamont's (1998) advice and engage in wellness-inducing reflection could be more confident and better prepared than average to manage negative situations that arise in their classroom.

Positionality of Researcher

When working as an instructional coach, I received news that one of my teachers checked herself into a psychiatric facility after contemplating suicide. I was stunned. I had observed and met with this teacher many times. She was a solid teacher. She planned her lessons meticulously, had structured routines, experienced little student misbehavior and loved teaching math. As a result, I could not sense her pain or hear her distress calls.

I sifted through my memories of every coaching conversation we had. I remembered her feeling overwhelmed by the volume of work and devastated by her students' test scores. She said several times that she felt hopeless because her data did not show signs of student mastery. She also said that she felt incompetent because her students' behavior was getting increasingly out of control. Most important, this teacher said several times that she felt deeply unhappy all the time. I tried to comfort her. I told her that she was doing a better job than she realized, and that student growth takes time. I also told her that she needed to take care of herself by getting plenty of rest and having a life outside of school. However, these words were insufficient to help relieve this teacher's deep anxiety and depression that her job activated.

This teacher sought psychiatric help, switched careers and is now living a life free of depression. However, her story struck a deep chord that has reverberated throughout my doctoral research. Her story pushed me to reflect on my own experience as a teacher. I recalled memories of hyperventilating outside my classroom door as I waited for students to arrive, hoping that they would cooperate and wondering if I was good enough to teach them. I then recalled the mornings when I parked at school and sat in my car for 20 to 30 minutes, trying desperately to push through the dread that kept me from entering the school. In retrospect, I know that I too was suffering from anxiety and depression.

This teacher's story and my reflections pushed me to refocus my previous research on teacher turnover to a dissertation study on teacher psychological wellness. Throughout my dissertation research, I have sought to find ways of helping teachers live happier and healthier lives. My efforts were an act of penance for failing to support my former teacher. However, my research quickly transformed into a personal mission. This mission comes from my personal belief that one major purpose of human life is to experience joy.

My mission also comes from a post-positivist epistemology. I believe in one objective reality that can be measured and predicted. Therefore, I believe that happiness is an objective state of being and that the pathway to it can be investigated and chartered using empirical research.

Outline of Dissertation

This dissertation chapter started out with a discussion of the difficulties that teachers have with stress in their profession. Because of several sociohistorical factors, teachers work in a high-stress profession that generates challenges to wellness. This chapter also posed a research question that opens an exploration of the relationships between teacher philosophies of

happiness, emotions and indicators of psychological wellness. This chapter then explained the rationale for a study of the relationship between teachers' philosophies of happiness, emotions and indicators of psychological wellness. Understanding the relationship between teacher philosophies of happiness, emotions and indicators of psychological wellness is important for improving their experience of stress, life satisfaction and likelihood of remaining in the teaching profession.

This chapter finally framed the relationship between teacher philosophies of happiness, emotions and indicators of psychological wellness within its socio-historical context and explained the author's positionality. The relationship between teacher philosophies of happiness, emotions and indicators of psychological wellness exists against a decades-long backdrop of social change and increasing expectations of teachers. These increasing expectations created greater amounts of teacher stress and later a movement to improve teacher wellness.

Chapter 2 will first analyze literature on philosophies of happiness, teacher emotions and indicators of psychological wellness. Chapter 2 concludes with a synthesis of the literature that will frame this study. Chapter 3 outlines the methodology used in this study, including the survey design, participants, sampling, construct measurement, statistical analyses and possible limitations of study findings. Chapter 4 presents this study's findings, and Chapter 5 interprets them to provide practical implications.

CHAPTER TWO: LITERATURE REVIEW

Chapter 2 contains a literature review that frames the concepts of philosophies of happiness, emotions and indicators of psychological wellness. These frameworks engender ways of defining and measuring philosophies, emotions and wellness as constructs. This chapter's literature review also explains the theoretical relationships between philosophies of happiness, emotions and indicators of psychological wellness. The theories point to a methodology that can trace and measure the relationships between these constructs. For instance, the theories explain why certain philosophies of happiness should be associated with more satisfaction and the fulfillment of more indicators of psychological wellness (relatedness, autonomy and competency). Furthermore, these theories provide a rationale for predicting the impact of a change in philosophy of happiness on teachers' emotions (satisfaction, anger and anxiety) and indicators of psychological wellness.

This chapter first covers self-determination theory, which traces the overarching connections between philosophies of happiness, emotions and indicators of psychological wellness. Second, the chapter presents analysis of each major philosophy of happiness. Each philosophy of happiness appears in subsections including a definition of the philosophy, an explanation of how people experience it and the philosophy's origin. Third, this chapter involves a discussion of emotion and its relationship to philosophies of happiness. Fourth, this chapter discusses a modern Aristotelian concept of living well and three indicators of psychological wellness. Finally, the chapter connects the literature to the use of specific methodology.

Self-Determination Framework

According to self-determination theory, human motivation comes from impulses to engage in growth activities and a drive to satisfy basic psychological needs. These individual

impulses and drives translate into social values that reflect psychological needs (Ryan & Deci, 2000). Social values then generate beliefs, which organize into systems. For example, the drive curiosity led early scientists to study the atom. This kind of human curiosity gave rise to values of objectivity in the scientific method, which is a system of beliefs about how to discover truth. In addition, human beings have a basic psychological need to bond with other people. As a result, many people value the family unit, which is where bonding first occurs. These people form beliefs about how to build and maintain strong families, viewing them as an important source of happiness.

Furthermore, according to self-determination theory, the social values human beings espouse contribute to their sense of self (Ryan & Deci, 2000). This suggests that the people's values constitute a system of beliefs that help them make moral and ethical decisions. For example, a person who espouses values of power and control could develop beliefs that enable them to rationalize war and colonization. By contrast, a person who integrates values of equality and cooperation could develop a system of beliefs that pushes them to support diplomacy and humanitarianism. Philosophers refer to these systems of beliefs as axiological moral philosophies meant to maximize the good (Hart, 1971). Following Hart's (1971) example, this study refers to these systems of beliefs as philosophies of happiness, because acting according to one's beliefs should generate happiness.

Self-determination theory also explains the connection between philosophies of happiness and emotion. The theory relies on the assumption that human beings pursue life goals that align to their philosophies of happiness, because doing so generates satisfaction (Cooper, 2011). Take for example the person who believes in maximizing material wealth. This person will set career goals that that maximize material wealth, because they believe it will lead to

satisfaction. This satisfaction comes not only from the comforts their wealth affords them, but more importantly from the alignment between their career goals and philosophical beliefs. By contrast, when people set goals that are contrary to their philosophical beliefs, they experience a dissonance that causes dissatisfaction (Cooper, 2011). For instance, the person who believes in their duty to improve human welfare could experience dissatisfaction if they set career goals to produce tobacco or firearms, which cause harm to people.

Finally, self-determination theory explains the connections that philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological philosophy) and emotions (satisfaction, anger and anxiety) have to indicators of psychological wellness (relatedness, autonomy and competency). Ryan and Deci (2000) argue that achieving life goals associated with philosophies of happiness not only creates feelings of satisfaction, but also enables people to meet basic psychological needs for autonomy, competency and relatedness. People experience feelings of competence and autonomy when they use their own skills to achieve life goals. People experience relatedness when they develop relationships with others as they work toward their life goals (Ryan & Deci, 2000). These relationships deepen as people experience satisfaction, because the experience of satisfaction from achieving their life goals make them more pleasant companions.

According to self-determination theory, the experience of satisfaction, autonomy, competence and relatedness are psychological rewards for achieving life goals (Ryan & Deci, 2000). Furthermore, according to self-determination theory, rewards of satisfaction, autonomy, competence and relatedness can be intrinsic or extrinsic. Intrinsic rewards involve satisfaction from engaging in the process of working toward life goals. Extrinsic rewards involve satisfaction from achieving the goal itself (Ryan & Deci, 2000). For instance, a person whose life goal is to

eliminate homelessness could experience intrinsic reward from the competency it took to establish a homeless shelter. Meanwhile, that same person could experience extrinsic rewards from the awards they receive after opening the shelter.

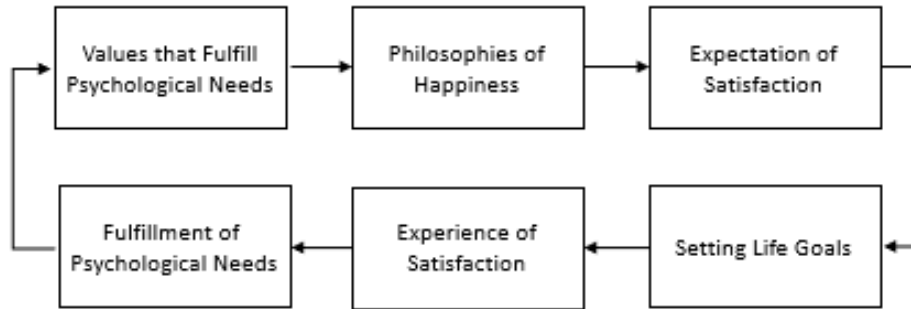


Figure 1: Self-Determination Theory as a Framework for Connections between Teachers’ Philosophies of Happiness, Emotion and Indicators of Psychological Wellness

This discussion on self-determination theory has a few important take-aways. First, self-determination theory provides a framework for understanding the connections between teachers’ philosophies of happiness, emotions and indicators of psychological wellness. Second, and most important, self-determination theory suggests that the following are all places where teachers could work to change their experience of stress: social values, beliefs that form philosophies of happiness, life goals that stem from philosophies of happiness and the emotions that result from outcomes of life goals. These are all points where teachers could control and have an impact on their responses to stressful situations in the classroom.

Philosophies of Happiness

Philosophers have debated the path to happiness for millennia. For instance, when Aristotle wrote his *Nicomachean Ethics* in 340 B.C.E., he described a philosophical disagreement over whether happiness resulted from good fortune (e.g. physical beauty, materials riches, a noble birth, etc.) or from being virtuous. Aristotle argued that living virtuously was a

better path to happiness because it did not depend on chance. A person could find happiness in virtue through training and habituation (Aristotle, *Nicomachean Ethics*, Book 1). Aristotle's arguments reverberate today in what contemporary philosophers call the paradox of happiness. The paradox of happiness is that vast empirical evidence suggests that people who seek the object of happiness (e.g. mansions, expensive cars and prestige) experience less happiness than they would if they focused on processes such as mastery of a skill or contributions to science and culture (Eggleston, 2013).

This age-old and persistent disagreement about what generates happiness highlights a diversity of philosophies of happiness. The continued disagreement also suggests varying utilities to people of each philosophy of happiness. The purpose of this section is to synthesize the literature on the following four major philosophies of happiness that many people espouse: virtue ethics, deontology ethics, utilitarian ethics and physiological. Each subsection here will provide a definition of the philosophy, its historical context and how the field of psychology contextualizes it. Defining the philosophy and its historical context is important for building a foundation for discussion. Furthermore, by presenting how the field of psychology contextualizes each philosophy helps answer this study's research questions.

Virtue Ethics Philosophy of Happiness

Classical virtue ethics are one major philosophy of happiness. Aristotle first discussed the concept of virtue ethics over two thousand years ago in Ancient Greece. In Book X of his *Nicomachean Ethics*, Aristotle argued that happiness, which he called *eudaimonia*, comes from living a virtuous life rich with contemplation (Welldon, 1897). In Book II of his *Nicomachean Ethics*, Aristotle argued that virtue consists of morality and intellect. Whereas moral virtues include such qualities as temperance and courage, intellectual virtue involves logic and reason.

Furthermore, whereas intellect grows by explicit instruction, morality develops through habits. However, Aristotle asserted that it was not enough to exhibit temperance and courage to be morally virtuous. Moral virtue required moderation. Therefore, he warned against taking moral virtues to the extreme. For instance, courageous people who fear nothing might take unreasonable risks that cause bodily injury. In addition, in Book IV of his *Nicomachean Ethics*, Aristotle asserts that moral virtue means doing good even when it is not reciprocated. The virtuous person, he argues, needs nothing more than honor from doing good (Welldon, 1897).

People who espouse virtue ethics experience happiness through what Miller (2009) calls the mood maintenance model. The mood maintenance model involves the display of virtues such as compassion. Miller (2009) argues that human beings show compassion when societies value it. Furthermore, she argues that when people display virtues like compassion, they experience positive moods because these virtues are in harmony with accepted norms (Miller, 2009). For example, a compassionate person could have a positive mood as they served meals to the homeless because their parents taught them it was the virtuous thing to do. People perpetuate these socially sanctioned virtues to maintain their positive moods (Miller, 2009).

A virtue ethics philosophy of happiness has the potential to generate wellness due to the social approval teachers receive when they espouse certain virtues. However, this philosophy of happiness creates the potential for teachers to run into two roadblocks to their experience of wellness. First, teachers could experience value shifts due to education reform. For instance, teachers who believe in the virtue justice and support zero-tolerance student discipline policies could experience dissatisfaction in the advent of a state-mandated restorative justice policies in schools. Second, teachers might be forced to act against their virtues during education reform, which could cause an uncomfortable psychological dissonance. For example, teachers who value

sexual purity as a religious virtue could experience severe discomfort when their school district mandates sex education.

Deontology Ethics Philosophy of Happiness

Deontology is a philosophy of happiness that involves following a set of moral duties despite their outcomes (Alexander & Moore, 2007). For instance, if a deontologist believed it was morally wrong to segregate special education students from the general population in schools, then they would maintain these beliefs even if integration created poorer academic outcomes overall. Deontology ethics resemble virtue ethics in that each philosophy defines what is right and wrong. However, deontology differs from virtue ethics, because it focuses on what people should do in certain situations rather than what kind of people they should be (Alexander & Moore, 2007). Furthermore, deontology requires a person to do the moral thing regardless of whether they do it to exhibit virtues such as courage or compassion.

People who espouse deontology ethics experience happiness through a framework that Seligman and Csikszentmihalyi (2000) call “positive psychology.” Positive psychology focuses on human strengths that contribute to subjective well-being, optimism and happiness. Fulmer (2015) argues that the human strength to which Seligman and Csikszentmihalyi (2000) refer is the moral good. Therefore, positive psychology involves the connection between the moral good and happiness. People feel happiness when they experience harmony between their actions and moral beliefs. By contrast, people feel unhappiness when there is discord between their actions and moral beliefs.

Deontology is an old concept. It was a major part of several ancient cultures and religions. However, Immanuel Kant developed our modern understanding of the philosophy deontology in the 19th century. In his *Metaphysics of Morals*, Kant argued for what he called the

categorical imperative as a rule to determine what is moral. An action is moral if it comes from a belief that rational human beings are an end in themselves. Furthermore, when an action is moral, people are duty-bound to carry it out (Kant, 1996). For instance, if healing the sick is moral, then people are duty-bound to care for the sick. In addition, Kant argued that people should cast aside concerns over conventional happiness if they conflicted with what was morally right (Hughes, 2004). Therefore, if a person must sacrifice pleasure or satisfaction to be able to do what is morally right, they may not experience conventional happiness.

The concept of deontology is alive and well in the field of education and part of teachers' professional lives. For instance, teachers could feel compelled to stay after school to do extra planning even though their contract does not require it because of their duty to increasing student achievement. Spending more hours at school then detracts from teachers' family responsibilities and relaxation time. As a result, teachers could feel overwhelmed and experience overall life dissatisfaction. Kant would argue that these teachers should do their duty, which is morally right, despite their dissatisfaction.

Teachers who espouse a deontology ethics philosophy of happiness connect their feelings of happiness to the service they provide their students. This philosophy of happiness has the potential to create a life full of meaning and purpose as teachers feel duty-bound to serve their students. This life full of meaning and purpose could then increase the likelihood of experiencing indicators of psychological wellness (relatedness, autonomy and competency). However, this philosophy of happiness also has the potential to enable those espousing it to avoid the distress associated with potentially bad outcomes. For instance, teachers who espouse this philosophy of happiness are not obligated to worry about whether their former students are homeless if they as teachers are fulfilling what they believe to be their one and only duty to provide access to

a quality education. Therefore, the utility of this philosophy of happiness to increasing psychological wellness is dependent on what teachers believe are their ultimate duties to students.

Utilitarian Ethics Philosophy of Happiness

According to Mill (1901), utilitarianism involves actions that maximize satisfaction and pleasure. However, contemporary understanding of utilitarian ethics expands the concept of utilitarian ethics from actions that generate satisfaction and pleasure to those maximizing good outcomes (Driver, 2009). This expansion of the concept of utilitarian ethics removed the purely hedonistic dimension that utilitarianism had for more than a century after its authors Jeremy Bentham and John Stewart Mill first articulated the concept (Driver, 2009). In contrast to virtue and deontology ethics, utilitarianism focuses on the ends rather than the means to determine the morality of an action. For example, a utilitarian city planner would choose to build a highway through a city neighborhood regardless of their duty to serve all constituents if the time and money it saved drivers outweighed the cost to neighborhood residents in lower property values.

People who espouse utilitarian ethics view happiness as the result of good outcomes they can achieve because of what Sirgy (2012) refers to as positive and negative psychological affect. Positive and negative affect are psychological constructs that involve groups of emotions that result from good and bad outcomes. For example, a hedge fund manager will experience positive emotions such as joy, contentment and pleasure when stock prices rise because she is maximizing the good in her investment portfolio. By contrast, that same hedge fund manager will experience negative emotions such as sadness, depression, anxiety and anger if stock prices drop, because she is not maximizing the good in her investment portfolio.

Since Jeremy Bentham and John Stewart Mill conceived of the concept of utilitarian ethics, several researchers in psychology developed further our understanding of utilitarianism. For instance, psychologists Elliott and Covington (2001) explore a construct called approach and avoidance within the context of utilitarianism. They explain that people engage in either approach or avoidance behavior based on the nature of the stimuli associated with tasks. People engage in tasks that bring them pleasure and avoid ones that cause them pain. Furthermore, they found that this process of approach or avoidance was automatic due to predispositions toward certain emotions and attitudes (Elliott & Covington, 2001). In addition, Tamir, Chiu and Gross (2007) discuss utilitarian ethics within motivational psychology and human emotion. These researchers tested the influence of hedonic versus utilitarian beliefs on emotional regulation. They found that participants made decisions to engage or avoid actions based on the pleasurable or painful emotions they expected to experience (Tamir et al., 2007).

A utilitarian ethics philosophy of happiness could be a useful framework for teachers in high-income communities with few major social problems. Teachers in these types of communities can with hard work maximize their students' academic potential with few major impediments, because they have more resources and parental support. Therefore, teachers could experience more positive affect as they achieve their goals for students. However, this philosophy of happiness would be less useful in poorer communities with social problems such as poverty and violence. Teachers in these communities could be working with a student population with major academic and cognitive delays that make it difficult to achieve goals. As a result, these teachers could experience more negative affect, which could decrease their overall psychological wellness. For instance, a utilitarian teacher might be more likely to respond to low

standardized student test scores with anger and depression than a virtue ethics educator who despite test scores takes pride in their determination and care for students.

Physiological Philosophy of Happiness

The physiological philosophy of happiness concerns the normal physical functioning of the human body. This philosophy of happiness emerges in the science related to eliminating depression. The drive for eliminating depression is more than a mere biological desire for homeostasis. The drive for eliminating depression is a philosophy because it rests upon a system of beliefs and reason that Hart (1971) argues pushes human beings to question their existence and what is valuable (Hart, 1971). For instance, a person who believes that eliminating depression causes happiness must first accept that they have a physical body with processes and systems that affect their mental state and experiences of happiness. This person must then accept that processes and systems within the physical body sometimes malfunction, and that medical science can diagnose and fix problems. Finally, the person must believe that a physical state free from depression will be preferable.

Depression is a common psychological disorder. According to the Center for Disease Control and Prevention (CDC) (2016), approximately 8% of people ages 12 or older experienced depression from 2009-2012. This is almost ten times the number of people in the United States suffering from heart disease (CDC, 2016). Psychologists now agree that depression involves extended and irrational periods of fear, sadness, loneliness, apathy, self-blame, agitation and withdrawal from society. Furthermore, they indicate that depression symptoms result from an interplay between biological, psychological and social factors (Beck & Alford, 2009; Spielberger, 2013). For example, a person may have a genetic predisposition to depression and develop symptoms in crisis situations for which usual coping mechanisms are insufficient.

Depression symptoms are problematic because they prevent people from being able to function normally in their everyday lives. For instance, depression sufferers could struggle to keep a job or develop positive social connections.

Depression sufferers seek relief from their symptoms through medication and psychotherapies to balance their moods and experience joy and contentment. For instance, according to the CDC, 13% of people ages 12 and older reported using antidepressant medications to treat their depression (Pratt, Brody, & Gu, 2017). Several research studies cast doubt on the efficacy rates of depression therapies, which range from 20% to 40% (Pigott, Leventhal, Alter, & Boren, 2010). Nevertheless, 49% to 84% of people receiving treatment for their depression see medication and therapy as helpful in reducing their symptoms (Prins, Verhaak, Bensing, & van der Meer, 2008). Depression sufferers see medication and psychotherapy as helpful because they balance moods by increasing serotonin and dopamine production, and by helping to develop coping mechanisms for stress (Ruhé, Mason, & Schene, 2007; Music, 2009).

Recorded history of human beings' experience with depression dates back 2000 years (Beck & Alford, 2009; Spielberg, 2013). For example, Marcus Tullius Cicero was a Roman statesman and author in the first century B.C. who frequently wept and contemplated suicide as he wrote his speeches, letters and philosophical dialogues. Many historians and psychiatrists now believe that Cicero suffered from clinical depression triggered by tragic events such as his political exile and his daughter's untimely death. These historians and psychiatrists also argue that this depression prevented him from developing close personal relationships and from living a normal life (Evans, 2007).

However, our scientific understanding of depression and its relation to happiness traces back to the birth of clinical medicine during the Enlightenment Period. Enlightenment scholars and doctors studied pathology and stressed the need for proper functioning systems in the human body. They saw depression as a physiological source of bondage that clinical medicine could eliminate (Foucault, 1975). Study on the physiological aspects of happiness and depression persisted through the middle and end of the 1800's with the growth of medical asylums. Sufferers of severe depression went to asylums for treatments such as rest, exercise, recreation, sensory-deprivation and (later) shock therapy for their symptoms (Ebert, 1999).

Focus on eliminating depression evolved when understanding of the disorder leapt forward in the middle of the 20th century. The apex occurred when Hamilton (1960) reframed depression as biological disorders involving malfunctions in neurochemistry. However, Hamilton (1960) stood on the shoulders of 70 years of research that preceded him. For instance, Beard (1880) argued that depression was a severe form of lethargy and Freud (1922) classified it as a mood disorder that originated in narcissism and self-denigration. In addition, Lewis (1938) explored the causes and symptoms of different forms of depression, which she defined as a lack of happiness leading to illness. Hathaway and KcKinley (1942) then followed with focus on the connections between depression and personality traits.

A physiology philosophy of happiness can be helpful for teachers with legitimate concerns that they are suffering from clinical depression. Indeed, eliminating depression through medication or other treatments for these teachers might be the only way to experience happiness and wellness. However, this philosophy of happiness could be limiting and ineffectual for teachers who do not have medical problems. For instance, otherwise healthy teachers could seek

medical treatment when they experience persistent dissatisfaction in their lives even though an imbalance in brain chemistry might not be the root cause.

Connection between Philosophies of Happiness

The four major philosophies of happiness—virtue ethics, deontology ethics, utilitarian ethics and physiological—all share one important characteristic. These philosophies of happiness provide distinct mental pathways for understanding and responding to every-day stressors. For schools, this means that philosophies of happiness could have an impact on whether teachers buckle under pressure for high standardized test scores, frustration from student misbehavior and fatigue from endless workdays.

However, human beings are complex and the different philosophies of happiness overlap. Understanding this overlap is important, because it makes teacher responses to situations in the classroom more complex. Consider the teacher experiencing serious student misbehavior. This teacher could experience negative moods when students misbehave, because they are not conforming to the school's core values of respect and cooperation. However, he may also feel pride in his ability to remain patient and calm as he redirects student misbehavior. Meanwhile, this teacher could be taking medication for depression and practicing mindfulness meditation at the beginning and end of the school day to manage his stress. This teacher has shown evidence of virtue ethics and a belief in the physiological philosophy focused on anxiety and depression. Therefore, he might be able to respond well to student misbehavior depending on which philosophy of happiness he tends to rely on under stress.

As chapter 3 demonstrates, cognitive psychologists have created and tested scales that indicate by scoring the strength of one philosophy of happiness versus others. These scores indicate when teachers have philosophies that overlap.

Malleability of Philosophies of Happiness

Recall that self-determination theory indicates that individual impulses and drives translate into social values that reflect psychological needs (Ryan & Deci, 2000). Remember also that Social values generate beliefs, which organize into systems that contribute to a person's sense of self and contribute to moral and ethical decision-making (Ryan & Deci, 2000). Philosophers refer to these systems of beliefs as axiological moral philosophies (Hart, 1971). This study refers to them as philosophies of happiness. Consider now the time, experiences and thought that these systems took to form and crystalize. It would seem illogical to suggest that these systems could simply change on a whim. In fact, Baxter Magdola (1988) argues that this type of change is possible but slow.

Brownlee, Purdie and Boulton-Lewis (2001) tested the ability of reflection to change the belief systems in epistemologies 29 pre-service teachers at a graduate school in Queensland, Australia. The researchers divided these pre-service teachers into two comparison groups, one of which received writing assignments and engaged in reflective discussion about their epistemologies. These researchers administered surveys and had the pre-service teachers prepare written statements of their epistemologies at the beginning and end of the study. The study unearthed significant changes to treatment-group teachers' epistemological beliefs from the beginning to the end of the study. The researchers argued that these pre-service teachers' epistemological beliefs became more sophisticated over time after a period of belief inconsistency, which involved feelings of confusion and disequilibrium.

William Perry (1970) outlined a more detailed version of this process involving the change of epistemological beliefs. He completed longitudinal research showed how the epistemological beliefs of Harvard and Radcliffe liberal arts students changed over time. He

outlines the following four different linear stages that students went through: dualism, multiplism, relativism and commitment. Dualism involves learning right and wrong from those in authority. Multiplism involves uncertainty about what can truly be known but still involves a belief in right and wrong. Relativism is a belief that knowledge is a construct and that right and wrong depend on individual definitions. Finally, commitment involves some residual relativism, but is also defined by specific deeply held beliefs.

Brownlee, Purdie and Boulton-Lewis (2001) demonstrate that this process of epistemological change is far from ubiquitous. Several past studies have failed to measure epistemological changes over time, indicating that changing beliefs is either extremely difficult or impossible. However just as many other studies successfully measured changes in epistemological beliefs, suggesting that the results of this dissertation study have the potential to help teachers reflect upon and possibly transform their philosophies of happiness. The success of this change, however, is dependent upon how deeply a teacher's beliefs are rooted and the will that they have to change.

Teacher Emotion

The preceding section synthesized literature on four major philosophies of happiness. Each subsection provided a definition of the philosophy, its historical framework and its psychological context in the teaching profession. This section builds a foundation for understanding the connections between philosophies of happiness and emotion by first identifying primary emotions and explaining the different ways in which teachers experience them. The section then presents psychological theories that explain how emotions work. To be clear, these emotions are not specific to teachers. However, the contexts in which teachers experience them are unique.

Human beings experience a multitude of emotions. However, Chen (2016) argues that these feelings fit under a list of primary positive and negative emotions. Primary negative emotions include frustration, anxiety, anger and fear. Meanwhile, primary positive emotions include excitement, pride, joy and satisfaction (Chen, 2016). These primary emotions are part of what Schutz, Aultman and Williams-Johnson (2009) refer to as core affect. Core affect occurs in the moment and is unconscious, continuous and fluctuating moment by moment when people's pleasantness and activation change (Schutz et al., 2009). For instance, a person experiencing high activation and unpleasantness would describe their immediate core affect as anger. By contrast, a person experiencing low activation and low unpleasantness would describe their core affect as satisfaction or joy.

However, primary emotions can also occur in predictable patterns, which Schutz et al. (2009) call affective tendencies. Affective tendencies involve responding to a set of familiar stimuli with predictable types of emotions. Affective tendencies form as the result of repeated experiences of and exposure to emotional responses to patterns of stimuli that cultural norms define as positive or negative (Schutz et al., 2009). For example, a teacher might respond with anger to students who challenge the fairness of her class rules, because she saw her own teachers react years earlier with anger in similar situations.

Because philosophies of happiness consist of cultural beliefs, and since affective tendencies are responses based on cultural norms, at least some affective tendencies form due to philosophies of happiness. This logical statement and its use of the transitive law defines the relationship between philosophies of happiness and emotion. Teachers might, for example, tend to respond with anger when their colleagues do not feel a sense of duty to help their students

prepare for college. Teachers also might tend to respond with joy when they see their students show a reluctance to judge their peers.

Teachers experience the same primary emotions as everyone else. However, teachers' affective tendencies from culture, religion and past personal events are reinforced by experiences they have in their profession. Rodgers and Scott (2008) argue that these affective tendencies emerge and become stronger in teachers' profession through building relationships with their colleagues and students. For instance, teachers with religious backgrounds teaching in low-income neighborhoods could develop stronger feelings of compassion when they see students with empty stomachs in dirty clothes. Furthermore, these researchers argue that affective tendencies constitute teachers' professional identities (Rodgers & Scott, 2008). For example, a teacher with a tendency toward compassion for low-income students could eventually identify as social justice advocates.

More important, experiences of success and failure in achieving goals in the classroom activate core affect and affective tendencies (Schutz & Lee, 2014). Teachers develop these goals based on their philosophies of happiness. For instance, teachers who espouse utilitarian ethics set goals and expectations that their students will pass standardized tests. If students do not pass their tests, then teachers have not maximized good instructional outcomes and could feel angry and anxious. By contrast, teachers who espouse deontology ethics set goals and expectations that they will fulfill their duty to encourage students to develop feelings of self-worth. Therefore, if teachers fulfill their duty to encourage students to develop feelings of self-worth, they will feel satisfied even if some of their students continue to have low self-esteem. All that matters to pure deontologists is that they fulfilled their duty.

Teachers experience of success and failure to achieve goals can have a powerful influence on their experiences at work. Schutz and Lee (2014) argue that when teachers develop a deep investment in their goals, they have negative responses to failure. And when teachers experience these negative responses repeatedly, their responses begin to follow patterns (Schutz & Lee, 2014). For example, when a teacher cares deeply about child literacy, but their students score poorly on the state standardized reading tests, the teacher could experience depression that recurs during every testing administration. This emotional process could then have negative effects on teacher motivation if teachers consistently fail to achieve their goals and expectations (Schutz & Lee, 2014). Teachers could lose motivation if they come to believe that their failure to achieve goals is connected to their overall ability to do their job.

Indicators of Teacher Psychological Wellness

Emotions are an essential part of wellness. For instance, it would be difficult to imagine that a absolute grouch could exist in a state of psychological wellness. Their constant anger and irritation could prevent them from experiencing life's joys. However, psychological wellness is not simply the sum of all positive emotions. Kahneman (1999) and Driver (2009) argue that a sole focus on emotions is too hedonic of an approach to defining wellness, because it implies that being well comes only from maximizing pleasure. Furthermore, Ryan, Huta and Deci (2008) argue that this hedonic approach does not lead reliably to individual or collective wellness, because positive emotions could for instance come from life goals driven by greed and vanity.

Ryan et al. (2008), invoke Aristotle when they describe wellness instead as a state of eudaimonia (i.e. living well). Aristotle's concept of living well dismissed hedonism, because the pursuit of pleasure could cause disappointment. For example, despite their best efforts, human beings frequently experience illness and disease, which are rife with displeasure. According to

Aristotle, living well instead meant being virtuous, pursuing virtuous objectives and engaging in reflectiveness and reason (Ryan et al., 2008). Ryan, Huta and Deci (2000) reinterpreted Aristotle's concept of living well as the fulfillment of basic needs for autonomy, competency and relatedness. These researchers define autonomy as a person's ability to set goals and decide how to achieve them. They define competency as a person's ability to feel efficacious in their lives. Finally, they define relatedness as a person's ability to create and maintain relationships (Ryan et al., 2008). Like Aristotle, they argue that living well need not always involve the experience of positive moods and emotions (Ryan & Deci's, 2008). For instance, relationships can involve distrust and painful unrequited love.

These researchers identified autonomy, competency and relatedness as basic psychological needs after reviewing decades of research (Deci & Ryan, 2000). Earlier research on psychological needs focused on stimuli that caused positive physiological responses. For instance, Hull (1943) argued that food, water and sex were the three main components of psychological wellness, because they were stimuli that caused positive physiological responses. In addition, Spence (1966) argued that anxiety and stress were the two main deterrents of psychological wellness, because they generated negative physiological responses. However, the problem with these and other similar theories was that they did not explain, for example, the connection between wellness and curiosity. Human beings are motivated by curiosities that do not necessarily invoke positive or negative physiological responses.

Deci and Ryan (2000) instead argued that focusing on the psychological need for autonomy, competency and relatedness was important, because human nature involves seeking novelty, exercising capacities and seeking connectedness. Meeting these three psychological

needs, they argue, is the key to experiencing the full range of human emotions that determines whether a life is well-lived.

Chapter Summary and Connection to Methods

This purpose of this chapter was to analyze scholarly literature on teachers' philosophies of happiness, emotions and indicators of psychological wellness to achieve the following aims: to explain key theories related to these three topics and to frame the relationships between these subjects using self-determination theory. Therefore, the chapter first provided discussion of self-determination theory and its ability to explain the following: what philosophies of happiness are and where they come from; the theoretical connections between philosophies of happiness and emotion; and the possible relationships between emotion and indicators of psychological wellness. The chapter then provided analysis of the scholarly literature on the four major philosophies of happiness. Each of these four philosophies of happiness had subsections that included their definitions, historical context and current place within psychological literature. This chapter later involved a discussion of the scholarly literature on teacher emotion and its relationship to philosophies of happiness. This chapter finally presented scholarly literature on wellness, reframing the concept as the fulfillment of the three basic psychological needs autonomy, competency and relatedness.

In sum, teachers' philosophies of happiness, emotions and indicators of psychological wellness are connected in two important ways through the lens of self-determination theory. First, human beings pursue life goals and take actions within the framework of self-determination theory that align to their philosophies of happiness to experience positive emotions and fulfill their basic psychological needs. When people meet their psychological needs, they experience a full range of human emotions, which further motivates them to pursue certain life

goals. For example, a person who espouses utilitarian ethics could seek a PhD and become a professor to maximize the satisfaction they feel from prestige. As this person reaches more prestige, they could then meet their three basic psychological needs (relatedness, autonomy and competency) by feeling more knowledgeable in their field of study, free to pursue their own research interests and fulfilled by developing close relationships with other scholars.

Chapter 2 established theoretical connections between teachers' philosophies of happiness, emotions and indicators of psychological wellness. Chapter 3 next presents methodology that measured each of these constructs and their relationships to each other. The researcher used a specific group of psychological scales and structural equation modeling because past research demonstrates that they provide valid measurements of the following: philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological philosophy), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency). These scales did not end up measuring their constructs perfectly and several items did not appear in the final analysis. However, with some modifications the scales and structural equation modeling did provide statistics that uncovered the relationships between constructs that could help teachers and schools generate more wellness by fostering certain types of philosophies of happiness and emotions.

CHAPTER THREE: METHODS

This study endeavored to answer the following research question: What are the relationships between teachers' philosophies of happiness (virtue, deontology, utilitarian and physiological), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, competency and autonomy)? Because this research question sought objective and answers that can be applied, the researcher's epistemology is post-positivist. To answer the research question this study first involved a survey with scale items to measure ten constructs including virtue ethics, deontology ethics, utilitarian ethics, physiological philosophy, satisfaction, anger, anxiety, relatedness, competency and autonomy. The study then involved statistical techniques to map the relationships between these ten constructs using teacher responses to survey items.

Chapter 3 includes discussion of the following: survey measures; participants; sampling methods; methods for analyzing survey data including descriptive statistics, analysis of variance (ANOVA) and structural equation modeling; and the potential limitations of the study. Discussing the survey measures shows the connection between scale item and construct. Examining participants, sampling methods and limitations helps in applying results to other teachers. Explaining the statistical methods helps in interpreting results.

Survey Measures

The survey in this study included a total of 72 questions, which included twelve demographic items. The remaining 60 items measured the following ten different constructs: virtue, deontology, utilitarian and physiological philosophies of happiness; the emotions satisfaction, anger and anxiety; and the indicators of psychological wellness including relatedness, competency and autonomy. These 60 items came from existing scales from past

research. Some of the researchers who created these scales used factor analysis to confirm that their items were a good fit for observed data, meaning that items were able to successfully measure constructs for a specific sample of participants. Therefore, these researchers' factor analyses generated goodness of fit indices including the Comparative Fit Index (CFI), Standardized Root Mean Square Residual (SRMR) and Root Mean Square Error of Approximation (RMSEA).

Statisticians and journal reviewers frequently disagree on what are acceptable values of CFI, SRMR and RMSEA to determine goodness of fit. However, most would agree that for survey items to be a good fit for a sample, the CFI should be somewhere between 0.90 and 0.95, the SRMR should be less than or equal to 0.08 (0.15 at the most) and the RMSEA should ideally be 0.05 or less, but no more than 0.10 (Weston & Gore, 2006). The following subsections will present the survey's demographic items (referred to as "measures") and items for each construct along with their goodness of fit statistics.

Demographic Measures

Twelve demographic items solicited the following information: age, sex, race, ethnicity, number of dependent family members, highest level of education, years of teaching experience, whether the participant had ever left a teaching job, grade level taught, certification route, whether the participant had a non-teaching career in the past and whether the participant had thought about leaving the teaching profession. The purpose of these questions was to help analyze important features of the survey sample and detect any possible systematic differences in responses. Systematic differences in responses by demographic could have suggested the need to discuss how the structural model might apply differently to different sub-populations.

Virtue Ethics Philosophy Measures

Ten survey items came from Riggio's et al. (2015) scale on virtues of ethical leaders. The items included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. These items were as follows:

- It is important that I consider carefully all the information available before making an important decision that impacts others.
- It is important that I consider the consequences of my actions.
- It is important to make the morally best decision in a given situation.
- I am not overly concerned with my personal power.
- I am not overly concerned with my own accomplishments.
- It is important to give credit to others when credit is due.
- It is important to demonstrate respect for all people.
- I do not take credit for the accomplishments of others.
- It is important to respect the rights and integrity of others.
- It is important to treat others as I would like to be treated.

Riggio et al. (2015) conducted confirmatory factor analysis on these items and generated a CFI of 0.95, an RMSEA of 0.083 and an SRMR of 0.029 with a sample size of 697. Therefore, these statistics indicated that their scale items were a good fit for their observed data.

Deontology Ethics Philosophy Measures

Eight items were from Robinson's (2012) scale measuring the presence of deontology ethics. These items also included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. These items were as follows:

- Some rules—especially universal ones—should never be broken no matter the possible gain.
- The consequences of an action are not the only factor in deciding if an action is moral; even if the consequences of the action are positive.
- If an action is a violation of societies' most basic rules it should not be committed; even if it will result in a large amount of good.
- Certain rights and freedoms are inalienable and should never be violated.
- The results of an action are not enough to justify that action.
- It is morally unacceptable to consider only the good that might come from an action when deciding how to behave.
- You should never treat people in a manner where they are means to a greater end.
- Sometimes the morally correct thing to do causes more pain than happiness.

Robinson (2012) conducted confirmatory factor analysis on these items and generated a CFI of 0.93 and a RMSEA 0.066 with a sample size of 488. Therefore, these statistics indicated that their scale items were a good fit for observed data.

Utilitarian Ethics Philosophy Measures

Ten items were from Robinson's (2012) scale measuring the presence of utilitarian ethics. The items—like in previous constructs—included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. These items were as follows:

- Moral actions are the ones that create the most good; even if the act itself initially causes harm or pain to some people.
- The needs of the many always outweigh the needs of the few or the individual.

- When deciding what action to take the only relevant factor to consider is the outcome of the action.
- If an action leads to a greater good, then you should do it.
- Rules and laws should only be followed when they maximize happiness.
- Whether one has maximized happiness is the only standard by which one should measure the success of one's life.
- Allowing people to experience pain and suffering in the name of maintaining a set of principles is morally unacceptable.
- The only moral principle that needs to be followed is that one must maximize happiness.
- People that fail to maximize happiness are doing something morally wrong.
- The result of one's actions is all that matters when deciding if they have acted morally.

Robinson (2012) conducted confirmatory factor analysis on these items and generated a CFI of 0.93 and a RMSEA 0.066 with a sample size of 488. These statistics match those listed in the Deontology Ethics Philosophy Measures section, because Robinson (2012) included deontology and utilitarian items in one structural equation model. The confirmatory factor analysis statistics again indicated that their scale items were a good fit for observed data.

Physiological Philosophy Measures

Ten items measured teacher beliefs about depression, which constitute their physiological philosophy of happiness. The physiological philosophy asserts that unhappiness comes from physiological symptoms associated with depression. This dissertation researcher wrote the 10 questions after consulting Prins' et al. (2008) work related to beliefs about depression. Because the researcher wrote these 10 questions, there is no previous factor analysis to report. These ten

items included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. These items were as follows:

- Anxiety and depression are real disorders.
- Anxiety and depression have physical symptoms that make it difficult for people to live their lives.
- Anxiety and depression can be treated and diagnosed by medical professionals.
- Anxiety and depression are triggered by biological and environmental factors.
- Anxiety and depression should be treated to help a person feel happier.
- Anxiety and depression are just a state of mind that people could change themselves if they wanted to.
- People who think they have anxiety and depression imagine their symptoms.
- People who think they have anxiety and depression do not need medical help.
- People who think they have anxiety and depression can still feel unhappy even if they take medication for it or get psychotherapy.
- People who think they have anxiety and depression can experience happiness without turning to medication or psychotherapy.

Emotions Measures

The survey includes a total of 10 items from Frenzel's (2016) scale measuring satisfaction, anxiety and anger. These 10 items show up in the survey for two reasons. First, Frenzel (2016) indicates that people experience satisfaction, anxiety and anger with greater frequency than others, reaffirming Chen's (2016) identification of these as primary emotions. Second, satisfaction, anxiety and anger are trait rather than state emotions, meaning they have lasting effects (Frenzel, 2016). Schutz's et al. (2009) calls these trait emotions affective

tendencies. These 10 items again included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. The items, each followed by the measured emotion in parentheses, were as follows:

- I generally enjoy teaching. (Satisfaction)
- I generally have so much fun teaching that I gladly prepare and teach my lessons. (Satisfaction)
- I often have reasons to be happy while I teach. (Satisfaction)
- I generally teach with enthusiasm. (Satisfaction)
- I often feel annoyed while teaching. (Anger)
- Sometimes I get really mad while I teach. (Anger)
- I generally feel tense and nervous while teaching. (Anger)
- I am often worried that my teaching isn't going so well. (Anxiety)
- Preparing to teach often causes me to worry. (Anxiety)
- I feel uneasy when I think about teaching. (Anxiety)

Frenzel (2016) conducted confirmatory factor analysis on these items and generated a CFI of 0.886 with a sample size of 414, which did not meet the threshold for goodness of fit. However, the SRMR was 0.065, which met the ≤ 0.08 threshold for goodness of fit (Frenzel, 2016). The SRMR contradicted the CFI in its indication of goodness of fit due to a small sample size. CFI is sensitive to sample size and often causes researchers to commit Type II errors (Schreiber, Nora, Barlow, & King, 2006). Therefore, the model was a good fit for observed data.

Psychological Wellness Measures

Finally, twelve items came from a scale that Ryan and Deci (2000) created to measure the presence of indicators of psychological wellness—autonomy, competency and relatedness. Ryan

and Deci (2000) argue that the three indicators of psychological wellness embody a way of living that contribute to happiness. These researchers did not report goodness of fit statistics. However, like all others in this survey, the 12 scale items included belief statements, to which respondents either strongly disagreed, disagreed, agreed or strongly agreed. The items, along with the measured indicator of psychological wellness in parentheses, were as follows:

- I feel like I am free to decide for myself how to live my life. (Autonomy)
- I really like the people I interact with. (Relatedness)
- People I know tell me I am good at what I do. (Competency)
- I get along with people I come into contact with. (Relatedness)
- I generally feel free to express my ideas and opinions. (Autonomy)
- I consider the people I regularly interact with to be my friends. (Relatedness)
- I have been able to learn interesting new skills recently. (Competency)
- People in my life care about me. (Relatedness)
- Most days I feel a sense of accomplishment from what I do. (Competency)
- People I interact with on a daily basis tend to take my feelings into consideration.
(Relatedness)
- I feel like I can pretty much be myself in my daily situations. (Autonomy)
- People are generally pretty friendly towards me. (Relatedness)

Survey Participants

This study involved a sample of 471 Kindergarten to 12th grade teacher participants from one urban school district in Texas. A full description of this sample will appear in Chapter 4. The sample came from this one district because the demographics are representative of most urban areas in the state (Texas Education Agency, 2019). For instance, during the 2017-2018 school

year, almost 100% of this district's teachers were white Hispanic. Moreover, 48% had master's degrees and 23% had five or fewer years of teaching experience. These characteristics are similar to teachers in the Houston Independent School District. The vast majority of its teachers are people of color and 33% have fewer than 5 years of experience (Texas Education Agency, 2019).

Survey Sampling and Administration

Before participants received the survey, the University of Texas at San Antonio's Institutional Review Board (IRB) reviewed the study proposal and a copy of the survey. The IRB received this proposal and survey in November of 2018 and approved it in December of that same year. The anonymous electronic survey was open from January to March 2019 and took participants an average of 10 minutes to complete. Teacher participants accessed the survey through a link to Survey Monkey, which the researcher sent via email. Teachers clicked on the link, read an electronic informed consent form and completed the survey by clicking bubbles and items from drop-down menus. After participants finished the survey they clicked "Close" and Survey Monkey transferred participant responses to a data file, which the researcher downloaded for analysis.

To maximize the response rate, the researcher enlisted the help of school administrators as points of contact on each campus. These points of contact sent reminders to teacher participants every week for three months to complete the survey. These contacts also made announcements at each staff meeting, reminding teachers to take the survey. One school even gave teachers 10 minutes during their staff meeting to complete the survey. In addition, the researcher followed up with teachers via email to remind them what they could learn from the survey findings.

The survey yielded a sample size of 471 participants, which was an 86% response rate. Therefore, according to a statistical procedure called the Hoelter test discussed in Chapter 4, this sample was large enough for determining goodness of model fit. The Hoelter—also known as Hoelter’s critical N—is an index that tells the researcher whether they have collected enough observations to be able to calculate legitimate goodness of fit statistics (Hoelter, 1983).

Describing the Sample

The researcher uploaded survey data into SPSS and generated descriptive statistics for each demographic item. These statistics revealed systematic differences in the proportions of most demographics similar to what Plake (1981) describes in her piece on measurement bias. Descriptive statistics also included the median and mode as well as ANOVAs to detect systematic differences in scale item responses by demographic. Systematic differences in scale item responses, meaning that the items did not measure constructs the same way with different demographics. These statistics indicated that scale item responses were not normally distributed and therefore systematically different. As a result, the researcher conducted Tukey tests to determine which demographics were responsible for these systematic differences in responses.

Factor Analysis and Goodness of Fit

This study involved factor analysis to confirm goodness of fit for scale items to the survey sample. It first involved exploratory factor analysis in SPSS including all 60 scale items in one structural model. Exploratory factor analysis is a process of determining how much shared variance scale item responses have under a factor (or construct). The more shared variance items have, the more likely they will fall under the same factor (Osborne, Costello & Kellow, 2008). This researcher used exploratory factor analysis to find out how each item aligned to or “loaded under” the following 10 constructs—philosophies of happiness (virtue ethics, deontology ethics,

utilitarian ethics and physiological philosophy), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency). See Figure 2 for an illustration of the predicted pathways in this structural model.

Because some survey items had very low extraction values and others did not load onto factors as expected, the researcher took a series of steps to eliminate items from the model and reduce the number of factors. Chapter 4 describes these steps in full detail, cites research supporting the practice of eliminating items and factors, and explains how eliminating items did not have a negative impact on the scale items' ability to measure constructs.

Second, the researcher designed a pathway model in SPSS Amos to illustrate relationships between constructs and to conduct a confirmatory factor analysis. The study involved confirmatory factor analysis to generate goodness of fit statistics for items in the model generated by the study's exploratory factor analysis. Meyers et al. (2017) explains that confirmatory factor analysis is a model-fitting approach using a concept called maximum likelihood. This maximum likelihood approach produces multidimensional coefficients that are similar to those in multiple regression analysis (Meyers et al., 2017).

Both exploratory and confirmatory factor analyses in this study included all philosophies of happiness (virtue ethics, deontology ethics, utilitarian ethics and physiological philosophy) in one pathway model, because people can espouse more than one philosophy. People and their belief systems are complex. Zheng (2015) argues that teachers' philosophical beliefs are part of a complex system and vary by context. His work suggests that a survey respondent could maintain a system of virtue ethics and utilitarian ethics at the same time depending on the situation. Therefore, the pathway model and confirmatory factor analysis in this study is designed to not only demonstrate relationships the philosophies of happiness have to emotions and indicators of

psychological wellness. It is also designed to reveal the relationships philosophies have to each other.

Data Analysis

The researcher used the predicted pathway model in Figure 2 for confirmatory factor analysis not only to determine goodness of fit, but also to generate correlation and regression coefficients for arrows in the pathway model. These correlation and regression coefficients, which the researcher reports in Chapter 4, indicate the strength and direction of relationships between constructs in the model. According to Meyers, Gamst and Guarino (2017), each of the large ovals in the pathway model in Figure 2 (e.g. deontology, anger, anxiety, etc.) represent latent variables. These researchers explain that a latent variable is a construct that relies on measurements from a group of scale items. In Figure 2, each construct is measured by scale items from this study's survey, represented by rectangles. The arrows from large oval to rectangle represent the shared variance of each item under a construct. Each rectangle is then connected to a small oval that represents the error term or unexplained variance. Finally, the pathway model in Figure 2 contains several large curved arrows arching from one construct to another. These arching arrows represent the relationships between constructs.

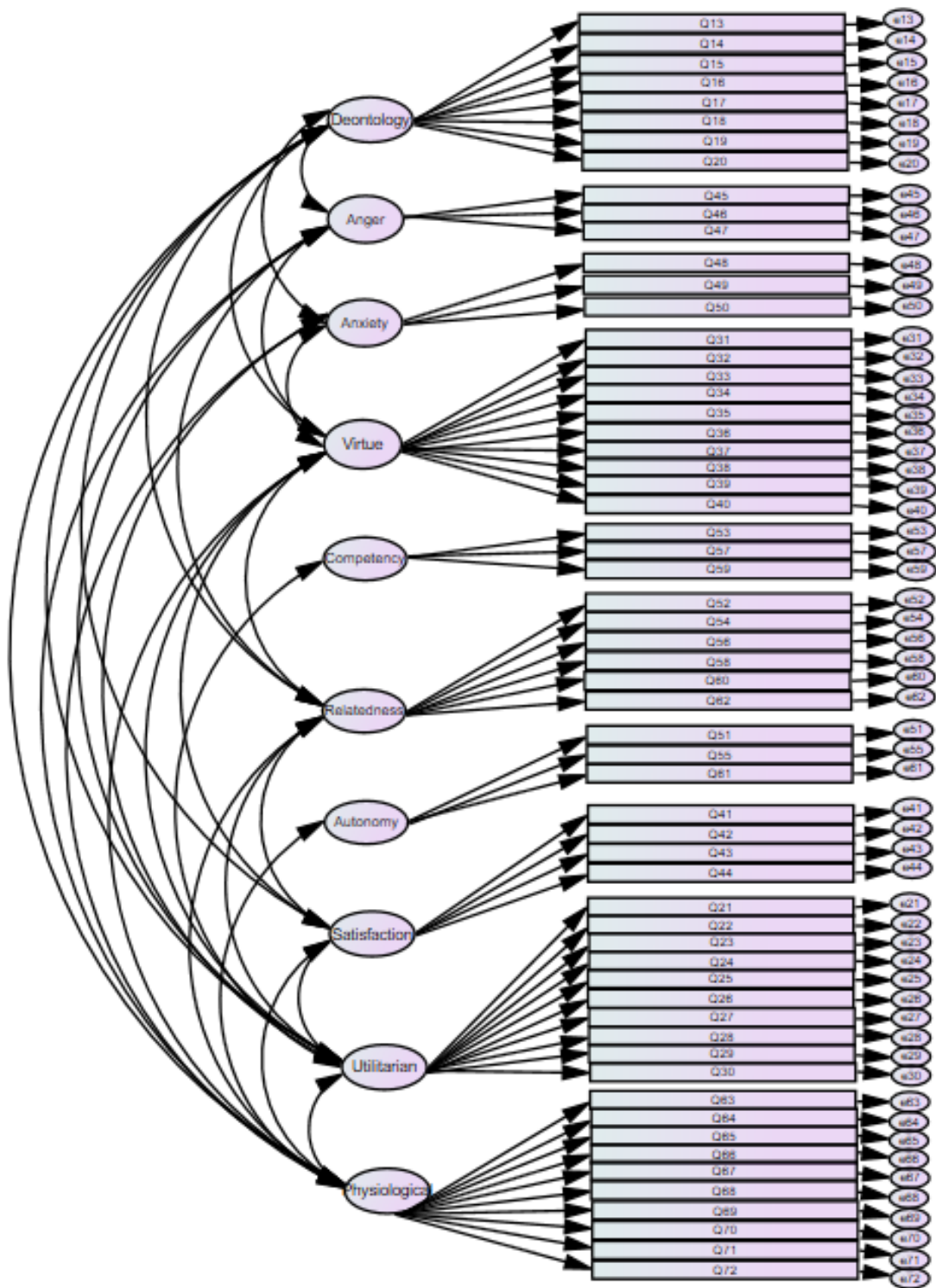


Figure 2: Predicted Pathway Model for the Relationships between Ten Constructs - Philosophies of Happiness (virtue, deontology, utilitarian and physiological), Emotions (satisfaction, anger and anxiety) and Indicators of Psychological Wellness (relatedness, competency and autonomy)

Virtue Ethics Philosophy Pathways

The 10 scale items connected to the large oval labeled “virtue” in Figure 2 constitute the measurement model for the construct virtue ethics philosophy. The arching arrows coming from the virtue oval constitute the relationships between the virtue ethics philosophy and all other constructs. The virtue ethics philosophy should first be related to each emotion. A virtue ethics orientation could cause teachers to experience satisfaction if they successfully exhibit certain virtues, or anger and anxiety if they fail to do so. Furthermore, a virtue ethics orientation could also cause teachers to feel satisfaction if their students and colleagues share their virtues, and anger or anxiety if their virtues differ.

In addition, virtue ethics should have a direct relationship to relatedness—one of the indicators of psychological wellness—because teachers could develop relationships with people who share their system of virtues. Relatedness should then be directly related to satisfaction because the relationships teachers build with their students and co-workers when they share values could create common ground for bonding. Finally, anger should be connected to relatedness because teachers may feel angry and disengage when students and co-workers disagree on important issues of morality.

Deontology Ethics Philosophy Pathways

The 8 scale items connected to the large oval labeled “deontology” in Figure 2 constitute the measurement model for deontology ethics. The arching arrows coming from the deontology oval constitute the relationships between the deontology ethics philosophy and all other constructs. The deontology ethics philosophy should be related to each emotion because it could cause teachers to experience satisfaction when their actions in the classroom align to their sense of duty to students and society. This orientation could also cause teachers to experience anger

and anxiety when there are school or district-level structural factors such as mandatory curricula or zero-tolerance policies that keep them from being able to act on their sense of duty to care for students.

In addition, the deontology ethics philosophy should have a direct relationship to relatedness because teachers could develop relationships with students and colleagues who share their sense of duty. Finally, relatedness should be associated to satisfaction because the relationships teachers build with their students and co-workers when they share a sense of duty could create the groundwork for friendship, teamwork and love. Furthermore, the satisfaction teachers feel when their actions align to their sense of duty could cause them to become more pleasant companions.

Utilitarian Ethics Philosophy Measures

The 10 scale items connected to the large oval labeled “utilitarian” in Figure 2 constitute the measurement model for utilitarian ethics. The arching arrows coming from the utilitarian oval constitute the relationships between the utilitarian ethics philosophy and all other constructs. The utilitarianism ethics philosophy should be related to each emotion. Teachers with a utilitarian philosophy could experience satisfaction when their students perform well academically. They could also feel anger and anxiety when their students fail. Each of these emotions should then have a direct relationship to competency and autonomy. When teachers are experiencing satisfaction from achieving good outcomes, they could develop confidence in their skills and abilities that contributed to student achievement. As a result, they could feel more competent. When teachers feel more confident, satisfied and competent from achieving good outcomes their administrators could grant them increased autonomy, believing that they are skilled and decisive

enough to achieve good outcomes with less direction. Administrators' granting of more autonomy and belief in teacher skill could then further increase teacher feelings of competency.

In addition, satisfaction, anger and anxiety should be associated with relatedness through teachers' willingness to reach out to others. When teachers achieve good outcomes, their satisfaction could create the desire to boast about and share their accomplishments with others. Sharing with others could enable these teachers to gain recognition and increase their impact on student achievement. By contrast, when teachers do not achieve good outcomes in their schools and classrooms, the anger and anxiety they experience could encourage them to avoid their peers to prevent uncomfortable discussions about their poor outcomes. Teachers' poor outcomes could also generate anger and anxiety when they realize how much time and effort, they expended for nothing, emotions which could overcome their ability to explain logically students' low achievement. Rather than considering all factors involved in low student achievement, they could instead attribute poor performance only to their teaching competency.

Physiological Philosophy Pathways

The 10 scale items connected to the large oval labeled "physiological" in Figure 2 constitute the measurement model for physiological philosophy. The arching arrows coming from the physiological oval constitute the relationships between the physiological philosophy and all other constructs. The physiological philosophy should be related to each emotion because it could lead to teachers to experience satisfaction if they understand their depression symptoms and how to eliminate them. This orientation could also lead teachers to experience anger or anxiety if awareness of depression creates a feeling of helplessness that amplifies their symptoms, or if treatments for these conditions stop working. The physiological philosophy should also be directly related to competency and autonomy. Teachers could experience

competency when they understand depression, because this knowledge helps them make decisions to regarding their mental health. Moreover, teachers could experience autonomy when they are able to take actions that bring their depression under control and help them live their lives better.

Finally, satisfaction should be associated with relatedness. As teachers understand, control and experience relief from their depression, they could be less likely to approach difficult situations with pessimism, anger or indifference. Their satisfaction from having control of their depression could help them be more optimistic and calmer when they encounter struggles in their lives. As teachers appear more satisfied, optimistic and calmer, they could become more pleasant companions.

Study Limitations

Findings from this dissertation study have the potential to help teachers transform their experience of stressful situations. Findings from this study also have the potential to help schools and districts improve teachers' psychological wellness by increasing their awareness of philosophies of happiness and emotions. However, this study has two potential limitations. First, this study limits its analysis to only four major western philosophies of happiness. Therefore, study results will have limited applicability to teachers who, for instance, espouse eastern philosophies of happiness such as Buddhism and Taoism. Second, this study only collected teacher responses from one urban school district. Therefore, the study may lack applicability to rural teachers whose challenges may differ due to factors such as demographics and school sizes.

Conclusion

This chapter discussed methodology used to quantify and measure the relationships between the four teacher philosophies of happiness (virtue ethics, deontology ethics, utilitarian

ethics and physiological philosophy), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency). The chapter included discussion of this study's 72-question survey, its mostly white-Hispanic and female participants, sampling of one urban school district, structural equation modeling and limitations. The reader should take away from this discussion the intricacies of relationships between the four teacher philosophies of happiness, emotions and indicators of psychological wellness. Like human beings, these relationships are complex. However, because psychologists have mapped the complexities, these relationships involve some predictability.

Chapter 4 will illuminate how these intricate relationships manifested in survey data from respondents in one school district in Texas. The chapter will reveal how close the actual relationships come to the predicted. The reader should expect some variation in actual relationships from the predicted, because theory must be falsifiable. There must be conditions under which theory does not hold up or else the theory would either be fact or fiction (LeBel, Berger, Campbell, & Loving, 2017). This will all become clear in Chapter 4.

CHAPTER FOUR: RESULTS

This study sought to answer the following research question: What are the relationships between teachers' philosophies of happiness (virtue, deontology, utilitarian and physiological), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, competency and autonomy)? Chapter 4 discusses results from the study outlined in Chapter 3 to answer this research question. Chapter 4 begins with a discussion of sample characteristics in this dissertation study. That discussion identifies differences in sample size by demographic categories to highlight their potential impact on the interpretation of study results. Following that, the chapter reports results from ANOVAs tests to reveal statistically significant differences in responses to scale questions. The chapter then presents and discusses the median and mode of scale items in the survey to show the distribution of respondents' strength of philosophies of happiness, emotions and indicators of psychological wellness.

Afterwards, this chapter explains the process of constructing the structural equation model using exploratory factor analysis. The chapter then reports model fit statistics in addition to correlation and regression coefficients from the confirmatory factor analysis. After that, the chapter presents results of the study's Tukey tests to indicate how broadly to apply results from the confirmatory factor analysis. Chapter 4 subsequently displays correlation coefficients on the actual pathway model generated in the confirmatory factor analysis. This chapter concludes with a discussion of how the results in Chapter 4 lead to interpretations in Chapter 5.

Sample Characteristics

The survey in this study contained twelve questions that elicited information on a variety of respondent characteristics from age and race to teacher certification route and years of teaching experience. Asking these questions provided a way to measure statistically significant

differences in responses to scale items and to determine whether study results might not be applicable to teachers outside of the survey sample.

Table 1 includes the sample frequencies and percentages for groups within each demographic. The sample in this study included 471 participants from a variety of different demographics. Participants were evenly distributed between all age groups except for one. The group of participants in the 48 to 55 age group was approximately 10% larger than all other age groups. Therefore, study results should not have had any systematic variations based on age. Moreover, a vast majority of participants were white and white-Hispanic, holding either a bachelor's or master's degree. The sample included small proportions of black participants and those who held doctoral degrees, meaning that the voices of black teachers and of those with the highest educational credential might not be reflected in the study results.

Furthermore, there was an even split between participants regarding whether they had only ever worked as a teacher and whether they had left one teaching position for another. This means that teachers professional backgrounds should not be associated with systematic differences in study results. Finally, most participants in this study had more than five years of experience, teach in elementary and high schools, and completed their certification in a traditional university program. Therefore, study results might not reveal the specific perspectives of the teachers dealing with the turbulence associated with a new career, in some cases after deciding to leave another. Nevertheless, three-fourths of participants have considered leaving teaching altogether, meaning that study participants potentially experience the emotional turbulence associated with teaching regardless of their years of experience or current teaching level.

Table 1

Sample Characteristics

Characteristics	n	Percent
Age		
22 to 31	96	20.6
32 to 39	90	19.3
40 to 47	87	18.6
48 to 55	105	22.5
56 to 73	89	19.1
Sex		
Male	93	19.7
Female	367	77.9
Other	11	2.3
Race		
Black	15	3.2
White	385	81.7
Asian	3	0.6
Middle Eastern	3	0.6
Pacific Islander	22	4.7
Multiracial	43	9.1
Ethnicity		
Hispanic	172	35.2
Non-Hispanic	292	62
Other	7	1.5
Education Level		
Bachelors	231	49
Masters	225	47.8
Doctorate	15	3.2
Years of Teaching Experience		
Less than a year	10	2.1
1 to 5 years	95	20.3
6 to 10 years	95	20.3
11 to 20 years	141	30.1
More than 20 years	148	27.3
Left a Previous Teaching Position		
Yes	251	53.7
No	216	46.3
Grades Taught		
Elementary	210	44.8
Middle School	98	20.9
High School	161	34.3
Certification Route		
Traditional University Certification	308	65.7

Alternative Certification	140	29.9
Other	4	0.9
Not Certified)	17	3.6
Career History in Teaching Only		
Yes	268	57.3
No	200	42.7
Considered Leaving Teaching		
Yes	342	73.2
No	125	26.8
Total Participants	471	100

Differences in Scale Item Responses by Demographic

Table 2 identifies a list of questions with statistically significant differences in responses for each demographic category. Identifying these statically significant differences resulted from conducting ANOVAs by demographic category for the responses to each survey question. Responses to a survey question had statistically significant differences in responses if the ANOVA generated a p-value of 0.05 or less, meaning that the responses to an item would fall on different distributions by demographic category.

Age, sex and ethnicity were the three demographic categories with the greatest number of questions that had statistically significant differences in responses. These three demographics are significant, because they are exogenous variables that in many contexts engender diverse perspectives that could create different distributions of responses. By contrast, the only other exogenous variable—race—had far fewer questions that had statistically significant differences in responses. However, this finding is suspect, because the study under-sampled black participants.

Education, years of experience and certification route were the three demographic categories with the next greatest number of questions that had statistically significant differences in responses to scale items. The existence of these statistically significant differences by

education, years of experience and certification route could be due to training and practice solving real problems. Moreover, the grades taught and whether respondents had only worked as teachers had very few statistically significant differences in responses. Whether they ever left a teaching position had no statistically significant differences. Finally, whether respondents ever considered leaving teaching had several statistically significant differences in responses.

Table 2

Statistically Significant Differences in Responses by Demographic Characteristics

Demographics	Questions
Age	13, 15, 26, 28, 31, 32, 36, 37, 39, 40, 41, 42, 43, 47, 48, 50, 52, 54, 57, 58, 60, 63
Sex	31, 32, 36, 37, 39, 40, 41, 42, 43, 45, 46, 48, 49, 52, 54, 57, 60, 63, 68, 69
Race	26, 32, 36, 37, 39, 40, 52, 63, 68
Ethnicity	13, 23, 26, 28, 30, 42, 45, 46, 57, 60, 63, 68, 69, 70
Education	13, 26, 36, 49, 52, 68
Experience	15, 26, 28, 31, 36, 40, 48, 49, 56, 59, 63
Left Teaching Position	None
Grades Taught	56, 60, 69
Certification Route	31, 32, 36, 37, 39, 40, 50, 52, 60, 63
Teaching Only	45, 46, 59, 63
Considered Leaving Teaching	41,42, 43, 45, 46, 47, 48, 49, 50, 52, 54, 57, 59, 68, 69, 70

Statistically significant differences in responses are to be expected, considering the sociocultural, sociopolitical and sociohistorical factors that create distinctions between different demographics. However, statistically significant differences in responses could lead to a Type II error during factor analysis by generating statistics that mistakenly indicate no evidence of a structural relationship between constructs. For instance, concluding that there is no evidence of a structural relationship between constructs might only apply to women, because they make up the majority of this study’s sample and have statistically significant differences in their responses. Differences in responses could also lead to a Type I error during factor analysis by generating

statistics that suggest the existence of a structural relationship between constructs that mistakenly appear to apply to all survey respondents. For example, concluding that there is a structural relationship between constructs might only apply to respondents with more than 5 years of experience, because they make up the majority of this study's sample and have statistically significant differences in their responses to scale items. In this example the structural relationship between constructs may indeed exist for respondents with over 5 years of teaching experience, but not for those with fewer than 5 years

This study used the Tukey Test to determine which specific demographics are created the statistically significant differences in responses to scale items in Table 2. The researcher reports the results of these Tukey tests following the results of the confirmatory factor analysis, because the Tukey results determine how broadly to apply confirmatory factor analysis results.

Responses to Scale Items

After respondents answered demographic items they completed 60 scale items measuring their philosophies of happiness (virtue ethics, deontology ethics, utilitarian ethics and physiological philosophy), emotions (satisfactions, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency). Each scale item presented a statement of general belief, with which respondents either had to agree or disagree. Respondents could say they strongly disagree, disagree, agree or strongly agree by selecting 1, 2, 3 or 4 respectively. Survey respondents did not have the opportunity to say they were unsure.

As one might expect, there were distinct distributions of responses to each item. Tables 3 through 8 provide measurements of central tendency to give the reader a clear picture of how these distributions look. Each philosophy has a separate table, but all emotions items appear in one table and all indicators of psychological items appear in another table. The researcher uses

the median and mode as the measures of central tendency rather than the mean and standard deviation, because scale items contain nominal data. Therefore, the decimal numbers that would have resulted from using the mean would not have made sense.

Table 3

Central Tendency of Responses to Deontology Scale Items

Scale Item	n	Median	Mode
13. Some rules—especially universal ones—should never be broken no matter the possible gain.	471	3	3
14. The consequences of an action are not the only factor in deciding if an action is moral; even if the consequences of the action are positive.	471	3	3
15. If an action is a violation of societies’ most basic rules it should not be committed; even if it will result in a large amount of good.	471	3	3
16. Certain rights and freedoms are inalienable and should never be violated.	471	3	3
17. The results of an action are not enough to justify that action.	471	3	3
18. It is morally unacceptable to consider only the good that might come from an action when deciding how to behave.	471	3	3
19. You should never treat people in a manner where they are means to a greater end.	471	3	3
20. Sometimes the morally correct thing to do causes more pain than happiness.	471	3	3

The median and mode for each deontology item is equal to 3, which equates with the answer “Agree” on the scale and indicates a normal distribution. Therefore, the majority of respondents espouse deontology ethics to some degree. The statistics also indicate that few respondents strongly disagreed with any of the deontology statements.

Table 4

Central Tendency of Responses to Utilitarian Scale Items

Scale Item	n	Median	Mode
21. Moral actions are the ones that create the most good; even if the act itself initially causes harm or pain to some people.	471	3	3
22. The needs of the many always outweigh the needs of the few or the individual.	471	2	2
23. When deciding what action to take the only relevant factor to consider is the outcome of the action.	471	2	2
24. If an action leads to a greater good than you should do it.	471	3	3
25. Rules and laws should only be followed when they maximize happiness.	471	2	2
26. Whether one has maximized happiness is the only standard by which one should measure the success of one's life.	471	2	2
27. Allowing people to experience pain and suffering in the name of maintaining a set of principles is morally unacceptable.	471	3	3
28. The only moral principle that needs to be followed is that one must maximize happiness.	471	2	2
29. People that fail to maximize happiness are doing something morally wrong.	471	2	2
30. The result of one's actions is all that matters when deciding if they have acted morally.	471	2	2

The median and mode for utilitarian items were mixed, meaning that the distribution has a slightly negative skew. However, a majority of respondents disagreed with most utilitarian statements. The majority agreed with just a few utilitarian statements. Therefore, respondents mostly rejected utilitarian ethics, though not to the extreme.

Table 5

Central Tendency of Responses to Virtue Scale Items

Scale Item	n	Median	Mode
31. It is important that I consider carefully all the information available before making an important decision that impacts others.	471	4	4
32. It is important that I consider the consequences of my actions.	471	4	4
33. It is important to make the morally best decision in a given situation.	471	3	3
34. I am not overly concerned with my personal power.	471	3	3
35. I am not overly concerned with my own accomplishments.	471	3	3
36. It is important to give credit to others when credit is due.	471	4	4
37. It is important to demonstrate respect for all people.	471	4	4
38. I do not take credit for the accomplishments of others.	471	4	4
39. It is important to respect the rights and integrity of others.	471	4	4
40. It is important to treat others as I would like to be treated.	471	4	4

The median and mode for each item indicates that the vast majority of respondents espouse virtue ethics, more than half of which had extreme beliefs in virtue. Therefore, the distribution of values for virtue ethics items was normal. Respondents only departed from their espousal of virtue ethics when considering their beliefs about humility. A sizable number of respondents did not believe humility was an important virtue. Respondents similarly departed from their beliefs about virtue when confronted with a statement about morality.

Table 6

Central Tendency of Responses to Emotion Scale Items

Scale Item	n	Median	Mode
41. I generally enjoy teaching.	471	3	3
42. I generally have so much fun teaching that I gladly prepare and teach my lessons.	471	3	3
43. I often have reasons to be happy while I teach.	471	3	3
44. I generally teach with enthusiasm.	471	3	3
45. I often feel annoyed while teaching.	471	2	2
46. Sometimes I get really mad while I teach.	471	2	3
47. I generally feel tense and nervous while teaching.	471	2	2
48. I am often worried that my teaching isn't going so well.	471	2	2
49. Preparing to teach often causes me to worry.	471	3	3
50. I feel uneasy when I think about teaching.	471	2	2

The median and mode for the items in Table 6 indicate that the majority of respondents' experience satisfaction in their teaching work. By contrast, the majority of statistics in Table 6 indicate that the majority of respondents did not experience anger and anxiety in the classroom. However, respondents' experience of anger and anxiety in the classroom was mixed depending on the item, which means the distribution of values for anger and anxiety had a slightly negative skew.

Table 7

Central Tendency of Responses to Psychological Wellness Scale Items

Scale Item	n	Median	Mode
51. I feel like I am free to decide for myself how to run my classroom.	471	3	3
52. I really like the people I interact with at school.	471	3	3
53. People I know tell me I am good at teaching children.	471	3	3
54. I get along with people at my teaching job.	471	3	3
55. I generally feel free to express my ideas and opinions at my school.	471	3	3
56. I consider my colleagues at school to be my friends.	471	3	3
57. I have been able to learn interesting new skills recently in my teaching job.	471	3	3
58. People at school care about me.	471	3	3
59. Most days I feel a sense of accomplishment from my teaching work.	471	3	3
60. My teaching colleagues tend to take my feelings into consideration.	471	3	3
61. I feel like I can pretty much be myself at my school.	471	3	3
62. People are generally pretty friendly towards me at school.	471	3	3

The median and mode for each psychological wellness item indicate that the majority of respondents' experience relatedness, competency and autonomy to some degree in their work. Furthermore, the distribution of values was normal for each psychological wellness item. However, the fact that the median and mode for each item in Table 7 was 3 and not 4 indicate that the experience of indicators of psychological wellness was not absolute.

Table 8

Central Tendency of Responses to Physiological Philosophy Scale Items

Scale Item	n	Median	Mode
63. Depression is a real disorder.	471	4	4
64. Depression has physical symptoms that make it difficult for people to live their lives.	471	3	3
65. Depression can be treated and diagnosed by medical professionals.	471	3	3
66. Depression is triggered by biological and environmental factors.	471	3	3
67. Depression should be treated to help a person feel happier.	471	3	3
68. Depression is just a state of mind that people could change themselves if they wanted to.	471	1	1
69. People who think they have depression imagine their symptoms.	471	1	1
70. People who think they have depression do not need medical help.	471	1	1
71. People who think they have depression can still feel unhappy even if they take medication for it or get psychotherapy.	471	3	3
72. People who think they have depression can experience happiness without turning to medication or psychotherapy.	471	3	3

The median and mode in Table 8 indicate that the vast majority of respondents believe that depression is real. However, respondents do not agree on what causes depression or whether it can be effectively treated. More important, those who believe depression is real responded with “Strongly Disagree” when confronted with statements that cast doubt on the existence of depression.

Identifying the Structural Equation Model

Identifying the structural equation model first involved conducting exploratory factor analysis with a limit of ten a priori constructs. Those ten constructs emerged from the literature

review in Chapter 2. They include the following: philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological philosophy), primary emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency). Normally, researchers use confirmatory factor analysis to test a structural equation model when using a priori constructs. However, both exploratory and confirmatory factor analysis produce pattern matrices with items loading under different factors. Furthermore, both exploratory and confirmatory factor analysis involve a process of testing different combinations of items to see which will produce the best model fit. The only difference in exploratory and confirmatory factor analysis is openness to discovering structural relationships not explained by existing theory. Confirmatory factor analysis does not permit the addition of factors (or constructs) beyond the frameworks in existing theories (Kline, 2015). Therefore, because both create the same product, using exploratory factor analysis to build the model and confirmatory factor analysis to generate model fit statistics in no way harms the validity of the results.

The initial exploratory factor analysis with ten constructs and 60 scale items generated an overall poor model fit for a few reasons. First, many of the extraction values of survey items for each factor (or construct) were far less than 0.3. An extraction value reveals how much variance a scale item shares with other items measuring a construct. The higher the extraction values, the better. Researchers typically eliminate items with extraction values less than 0.3, because they share little variance with other factors and therefore do not measure the construct very well (Osborne, Costello & Kellow, 2008). Second, the pattern matrix appearing in Figure 3 had survey items that double and triple-loaded onto several different factors or did not load onto any factors at all. A pattern matrix shows how items in a survey group together based on the shared variance we see in their extraction values (Kline, 2015). Third, all model fit indices were below

acceptable levels. As a result, the model parameters required adjustments. Therefore, the researcher engaged in a process of removing survey items to improve extraction values, the pattern matrix and the overall model fit. Osborne, Costello and Kellow (2008) argue that this process of dropping items can solve problems with model fit.

Factor Matrix

	Factor									
	1	2	3	4	5	6	7	8	9	10
Q13Deontology										
Q14Deontology										
Q15Deontology										
Q16Deontology		.321	.319							
Q18Deontology										
Q19Deontology										
Q20Deontology										
Q22Utilitarianism										
Q23Utilitarianism				.411	.326					
Q24Utilitarianism				.311						
Q25Utilitarianism										
Q26Utilitarianism				.461						
Q27Utilitarianism										
Q28Utilitarianism				.502	.329					
Q29Utilitarianism			-.349	.305						
Q30Utilitarianism										
Q31Virtue		.361	.314							
Q32Virtue		.340	.424							
Q33Virtue		.386								
Q34Virtue	.302									
Q35Virtue	.999									
Q36Virtue		.376	.381							
Q37Virtue		.373	.371							
Q38Virtue		.301	.386							
Q39Virtue		.378	.413							
Q40Virtue		.394	.313							
Q41ESatisfaction		.687								
Q42ESatisfaction		.653								

Q43ESatisfaction	.657								
Q44ESatisfaction	.585			.320					
Q45EAnger	-.514								
Q46EAnger	-.341								
Q47EAnxiety	-.546		.415						
Q48EAnxiety	-.389	.322	.391						
Q49EAnxiety	-.407	.362	.344						
Q50EAnxiety	-.572	.306	.398						
Q51Autonomy	.490								
Q55Autonomy	.621			-.370			-.303		
Q61Autonomy	.612								
Q52Relatedness	.557								
Q54Relatedness	.564								
Q56Relatedness	.403			-.369					
Q58Relatedness	.575			-.404					
Q60Relatedness	.448			-.312					
Q62Relatedness	.523								
Q53Competency	.370								
Q57Competency	.444								
Q59Competency	.601								
Q63Physiological		.521							
Q64Physiological		.410							
Q65Physiological		.455							
Q66Physiological		.455							
Q67Physiological									
Q68Physiological		-.587			.407				
Q69Physiological		-.469							
Q70Physiological		-.504							
Q71Physiological		.457							
Q72Physiological					.304				
Q17Deontology					.354			.309	

Figure 3: The Original Pattern Matrix with 10 Factors

Survey questions that had low extraction values tended to be the items in the pattern matrix that did not load underneath any of the ten model factors. Therefore, the researcher removed them one by one, while simultaneously monitoring changes to the pattern matrix and

model fit. See Table 9 for the specific items that the researcher removed, and the reasons for which he removed them. The model fit indices moved closer to acceptable levels as each one of these low extraction value items disappeared, and the pattern matrix had fewer double and triple loadings. Moreover, when low extraction value items disappeared, survey items started to load under factors (or constructs) that emerged in this dissertation's literature review.

However, even after removing all items with low extraction values, the model fit was still slightly unacceptable, and the pattern matrix still had items loading onto two or three different factors. The researcher simultaneously realized that items measuring anger and anxiety consistently loaded into the same factor. Therefore, it was possible that the model had too many specified factors. This could account for the unacceptable model fit, in addition to the double and triple-loading items. The researcher then reduced the number of factors from ten to nine, from nine to eight and finally from eight to seven. Seven turned out to be the best number of factors to get all scale items to load according to theoretical constructs presented in Chapter 2.

When reaching 7 factors instead of 10 some items that previously loaded onto factors disappeared from the model altogether. When these items disappeared from the model, extraction values for similar items under the construct increased. Osborne, Costello and Kellow (2008) that increasing or decreasing the number of factors can be deleterious to a model's data. The deletion of factors could eliminate the measurement of constructs that exist within the model's data. However, the ultimate impact of adding or subtracting factors is in the model fit. By adding or subtracting factors, a researcher can find a good model fit. A researcher knows that their adding or subtracting of factors was successful if they achieve a good model fit (Osborne, Costello & Kellow, 2008).

In the end, the sale items for all but two pair of constructs—satisfaction/competency and anger/anxiety—loaded as the literature in Chapter 2 said they should. Items measuring satisfaction and competency loaded together in every iteration of the structural equation model, meaning the items for these constructs shared so much variance that the model treated them as one construct. Because it is theoretically possible to be competent and dissatisfied and to be satisfied and incompetent, the researcher concluded that these constructs could not be the same. As a result, he decided to eliminate competency items from the final model. Anger and anxiety items also loaded together. However, because anger and anxiety activate the same parts of the brain and therefore elicit the same physiological responses, the researcher decided to treat them as one construct (Kimbrell et al., 1999).

Table 9

Questions Excluded from Structural Equation Model

Question	Theorized Construct	Reason Excluded
14	Deontology	Did not load on any of the seven factors.
16	Deontology	Loaded on two factors; Low extraction value.
17	Deontology	Did not load on any of the seven factors.
18	Deontology	Did not load on any of the seven factors.
19	Deontology	Low extraction value.
20	Deontology	Low extraction value.
21	Utilitarian	Did not load on any of the seven factors.
22	Utilitarian	Did not load on any of the seven factors.
24	Utilitarian	Low extraction value.
25	Utilitarian	Low extraction value.
27	Utilitarian	Low extraction value.
29	Utilitarian	Low extraction value.
33	Virtue	Loaded on two factors.
34	Virtue	Did not load on any of the seven factors.
35	Virtue	Did not load on any of the seven factors.
38	Virtue	Low extraction value.
44	Satisfaction	Loaded on four factors.
51	Autonomy	Loaded on five factors.
53	Competency	Loaded on a factor by itself.
55	Competency	Did not load on any of the seven factors.
61	Relatedness	Loaded on three factors; Low extraction value.
62	Relatedness	Loaded on three factors.
64	Physiological	Loaded on two factors; Low extraction value.
65	Physiological	Loaded on three factors; Low extraction value.
66	Physiological	Did not load on any of the seven factors.
67	Physiological	Did not load on any of the seven factors.
71	Physiological	Did not load on any of the seven factors.
72	Physiological	Low extraction value.

Removing from the structural model survey items with low extraction values and is a common and accepted practice in structural equation modeling. However, the acceptability of this practice is not only due to the advantages it provides in creating a good model fit, but also in refining the model so that it only includes items that actually measure variance in constructs. The inability of eliminated items to measure variance in constructs could be due at least in part to

problems with what Clark and Watson (1995) refer to as internal consistency and unidimensionality. Internal consistency refers to the interrelation between items measuring a construct. Unidimensionality refers to the ability of scale items to measure a construct. Clark and Watson (1995) point out that a scale can have internal consistency and not have unidimensionality, meaning that even though in this study eliminated items with extraction values below 0.3 shared a little variance with other items they did not necessarily measure the construct.

Nevertheless, there is a chance that the scale items in this study did have unidimensionality when previous researchers tested them. As a result, the process of eliminating items might have cost measurements of parts of each construct. Therefore, it is necessary to do an overall analysis of eliminated items to ensure that nothing valuable was lost. We turn first to the eliminated deontology ethics philosophy items. Recall from Chapter 2 that deontology ethics focus on one's duty to follow rules and norms. Items 13 and 15, which were not eliminated, focus on teachers' duty to follow rules, which is at the heart of deontology. Therefore, these questions are sufficient in themselves to measure deontology ethics. Furthermore, questions 14, 17, 18, and 19 really ask respondents to indicate whether they reject utilitarian ethics, which respondents may not in all situations. And questions 14 and 20 ask respondents about their beliefs about morality, when one's duty is not necessarily dependent on the morality or a rule or norm.

Next, we focus on eliminated utilitarian ethics and virtue ethics philosophy items. The literature in Chapter 2 indicates that utilitarian ethics are concerned with maximizing good outcomes. Questions 23, 26, 28 and 30, which were not eliminated from the final model, each ask the respondent to share their beliefs about the importance of maximizing good outcomes. By

contrast, eliminated items 22 and 27 do not explicitly ask about the importance of maximizing good outcomes. And eliminated items 21, 24, 25 and 29 attempt to force the respondent to denounce deontological ethics, which respondents may espouse in certain situations. By contrast, the literature in Chapter 2 indicates that classical virtue ethics focus on the importance of temperance, logic and reason. Items 31, 32, 36, 37, 39 and 40, which were not eliminated, all ask about respondents' beliefs related to tempering their personal ambitions and thinking through the possible results of their actions. Eliminated items 33, 34, 35, and 38 do not do this.

We now address eliminated items from the constructs satisfaction and relatedness. The literature in Chapter 2 indicated that satisfaction is a positive enduring emotion that we experience inside. Items 41, 42 and 43, which were not eliminated, all ask respondents whether they experience that positive enduring emotion. By contrast, the eliminated item 44 does not make it clear whether the enthusiasm to which it refers is felt by the respondent or perceived by others. As a result, the question is confusing. The literature in Chapter 2 also argued that relatedness refers to the strength of relationships a respondent has. Items 52, 54, 56, 58 and 60, which were not eliminated, all refer to the care that respondents feel exchanged between themselves and their coworkers. However, item 62 uses the word friendly, which implies smiles, active attention and handshakes. Because teachers are stressed-out busy professionals, they may not experience care from their colleagues in this way.

Finally, we turn to a discussion of eliminated physiological philosophy items. The literature in Chapter 2 indicated that physiological items measure respondents' beliefs about the experience, diagnosis and treatment of depression. Items 63, 68, 69 and 70, which were not eliminated, measure respondents' beliefs about the experience and treatment of depression.

However, eliminated items 65, 66, 67, 71 and 72 ask respondents to make judgments that require expert knowledge that they might not have if they have never suffered from depression.

Model Fit

After the exploratory factor analysis made it clear which constructs and items should be included in the structural model, the next step was conducting a confirmatory factor analysis using SPSS Amos. The purpose of this confirmatory factor analysis was not only to report model fit indices, but also create a pathway model complete with extraction values and correlations to show the relationships between constructs. The model fit indices, which appear in Table 10, reveal two important findings. First, as Table 10 indicates, the structural model is a good fit overall for the survey sample. The model's GFI was 0.908 and the RMSEA was 0.037. Recall that Statisticians and journal reviewers frequently disagree on what are acceptable values of CFI, SRMR and RMSEA to determine goodness of fit. However, to be a good fit for the population, the CFI should be between 0.90 and 0.95, the SRMR should be less than or equal to 0.08 (0.15 at the most) and the RMSEA should ideally be 0.05 or less, but no more than 0.10 (Weston & Gore, 2006). Therefore, the sample confirms constructs discussed in Chapter 2 with the exception of competency and autonomy.

Second, both HOELTER statistics indicate that the sample size was large enough to support the validity of the model fit indices. Hoelter (1983) created these statistics after demonstrating that small sample sizes contain bias that can lead a researcher to mistakenly conclude that a model is a good fit for a sample. He also demonstrated that excessive sample sizes can tend to magnify miniscule statistically significant differences between a model and a sample, leading a researcher to mistakenly conclude that a model is not a good fit for a sample. He concluded that if a sample size was just large enough to start magnifying miniscule

statistically significant differences and indices nevertheless showed a good model fit, then this was strong evidence of a good model fit (Hoelter, 1983).

HOELTER statistics for the model in this dissertation study indicate that the sample size needed to be 322 and 366 to start obtaining statistically significant differences at an alpha level of 0.05 and 0.01 respectively. It should be noted that this dissertation study had a sample of 471, which is far above the 0.01 alpha level sample size of 366. Nevertheless, the model was still a good fit to the sample, which means that the sample in this dissertation study passed a very strong test for goodness of fit.

Table 10

Model Fit

Fit Index	Acceptable Level	Study Value	Determination
RMR	> 0.05	0.023	Good fit
GFI	≥ 0.90	0.908	Good fit
AGFI	≥ 0.90	0.891	Fair fit
NFI	≥ 0.80	0.855	Good fit
IFI	≥ 0.95	0.939	Fair fit
TLI	$0 \leq TLI \leq 1$	0.931	Good fit
CFI	≥ 0.95	0.938	Fair fit
RMSEA	< 0.05	0.037	Good fit
HOELTER, 0.05	322	471	Sufficient
HOELTER, 0.01	336	471	Sufficient

The extraction values in Table 11 reveal that the items in the structural equation model loaded onto the following seven factors: Anger/Anxiety, Virtue, Relationships, Satisfaction, Utilitarian, Physiological and Deontology. These seven factors are the seven constructs in the structural equation model. In addition, the extraction values in Table 11 reveal that most of the items in the model make statistically significant contributions to the variations in values of the constructs with which they are associated. These extraction values only increased with each

iteration of the structural equation model during exploratory factor analysis. Furthermore, the extraction values in Table 11 reveal only one item a low but still significant contribution to its construct's variance. It was one of the two items measuring deontology. While this item's contribution is not the strongest, its counterpart contributes to the deontology construct that is stronger than those of all other items in the model.

Table 11

Extraction Values of Scale Items in Actual Model

Survey Question	Construct	Extraction Value
45 I often feel annoyed while teaching.	Anger/Anxiety	.680
46 Sometimes I get really mad while I teach.	Anger/Anxiety	.525
47 I generally feel tense and nervous while teaching.	Anger/Anxiety	.748
48 I am often worried that my teaching isn't going so well.	Anger/Anxiety	.618
49 Preparing to teach often causes me to worry.	Anger/Anxiety	.646
50 I feel uneasy when I think about teaching.	Anger/Anxiety	.771
31 It is important that I consider carefully all the information available before making an important decision that impacts others.	Virtue	.577
32 It is important that I consider the consequences of my actions.	Virtue	.610
36 It is important to give credit to others when credit is due.	Virtue	.622
37 It is important to demonstrate respect for all people.	Virtue	.625
39 It is important to respect the rights and integrity of others.	Virtue	.674
40 It is important to treat others as I would like to be treated.	Virtue	.646
52 I really like the people I interact with at school.	Relatedness	.713
54 I get along with people at my teaching job.	Relatedness	.647
56 I consider my colleagues at school to be my friends.	Relatedness	.628
58 People at school care about me.	Relatedness	.734
60 My teaching colleagues tend to take my feelings into consideration.	Relatedness	.648
41 I generally enjoy teaching.	Satisfaction	.749
42 I generally have so much fun teaching that I gladly prepare and teach my lessons.	Satisfaction	.762
43 I often have reasons to be happy while I teach.	Satisfaction	.735

57	I have been able to learn interesting new skills recently in my teaching job.	Satisfaction	.494
59	Most days I feel a sense of accomplishment from my teaching work.	Satisfaction	.707
23	When deciding what action to take the only relevant factor to consider is the outcome of the action.	Utilitarian	.610
26	Whether one has maximized happiness is the only standard by which one should measure the success of one's life.	Utilitarian	.662
28	The only moral principle that needs to be followed is that one must maximize happiness.	Utilitarian	.696
30	The result of one's actions is all that matters when deciding if they have acted morally.	Utilitarian	.523
63	Depression is a real disorder.	Physiological	.473
68	Depression is just a state of mind that people could change themselves if they wanted to.	Physiological	-.772
69	People who think they have depression imagine their symptoms.	Physiological	-.633
70	People who think they have depression do not need medical help.	Physiological	-.661
13	Some rules—especially universal ones—should never be broken no matter the possible gain.	Deontology	.876
15	If an action is a violation of societies' most basic rules it should not be committed; even if it will result in a large amount of good.	Deontology	.303

Correlations Between Model Constructs

Correlations show the strength and direction of relationships between constructs in a structural equation model. As a correlation approaches zero, the relationships disappear. A correlation of 1.00 would mean a perfect one-to-one relationship between constructs, meaning that as one construct changes, so the another. Table 12 presents several correlations in the model that reveal much about the relationships between constructs. First, Table 12 reveals that Anger/Anxiety correlates positively with the utilitarian construct at a statistically significant level, meaning that when participants espouse more utilitarian values, they simultaneously tend to experience more anger and anxiety. By contrast, Anger/Anxiety correlates negatively at a statistically significant level with the constructs Virtue, Relationships and Satisfaction. This

means that when participants espouse virtue ethics, they simultaneously tend to experience less anger and anxiety.

Furthermore, as participants experience more satisfaction, they tend to experience less anger. Relatedness similarly correlates negatively at a statistically significant level with anger/anxiety. Therefore, participants do not experience positive relationships and anger/anxiety simultaneously, meaning either relationships improve as their anger and anxiety decrease, or that their anger and anxiety decrease as they experience better relationships. Finally, deontology ethics correlates negatively at a statistically significant level, indicating that participants who espouse deontology ethics do not tend to simultaneously experience anger and anxiety.

Second, Table 12 indicates statistically significant relationships between virtue ethics and several other constructs. For instance, virtue ethics correlates positively with deontology and physiological philosophies, meaning that participants who espouse virtue ethics also tend to believe in the importance of duty and the existence and impacts of depression. In addition, virtue ethics correlates positively with satisfaction, indicating that participants who espouse virtue ethics experience satisfaction simultaneously. Moreover, virtue ethics correlates positively with relatedness, which indicates that participants who believe in virtue ethics tend to have more positive relationships. Therefore, either teachers who espouse virtue ethics build stronger relationships, or relationships increase their belief in virtue ethics. By contrast, virtue ethics correlates negatively with utilitarian ethics. This means that participants who espouse virtue ethics do not tend to also believe in utilitarian ethics, and vice versa.

Third, Table 12 uncovers several statistically significant relationships between deontology, satisfaction and a few other constructs. For example, the table demonstrates that the relatedness correlates positively with deontology and satisfaction. Therefore, people who

espouse deontology ethics tend to have more positive relationships. Furthermore, either people with better relationships experience more satisfaction, satisfaction tends to give rise to better relationships, or both are true. By contrast, there is no statistically significant correlation between deontology ethics and relationships, or between beliefs about depression and relationships. In addition, Table 12 shows that satisfaction is positively related to deontology ethics, meaning that people who espouse deontology ethics tend to experience more satisfaction. Meanwhile, there is no statistically significant correlation between satisfaction and utilitarian ethics or beliefs about depression.

Fourth, Table 12 revealed a statistically significant negative relationship between the construct utilitarian ethics and the construct physiological philosophy, indicating that people who espouse utilitarian ethics tend not to believe in depression or its impacts on mental health. Furthermore, people with utilitarian ethics tend not to have a statistically significant relationship to the existence of deontology ethics.

Table 12

Correlations Between Constructs

Relationship	Estimate	S.E.	C.R.
Anger/Anxiety ↔ Virtue	-0.024*	0.010	-2.401
Anger/Anxiety ↔ Relatedness	-0.071**	0.014	-5.158
Anger/Anxiety ↔ Satisfaction	-0.172**	0.020	-8.626
Anger/Anxiety ↔ Utilitarian	0.034*	0.014	2.443
Anger/Anxiety ↔ Physiological	0.001	0.009	0.097
Anger/Anxiety ↔ Deontology	-0.021	0.021	-1.014
Virtue ↔ Relatedness	0.060**	0.009	6.329
Virtue ↔ Satisfaction	0.076**	0.011	6.721
Virtue ↔ Utilitarian	-0.007	0.008	-0.871
Virtue ↔ Physiological	0.040**	0.007	5.401
Virtue ↔ Deontology	0.054**	0.013	4.096
Relatedness ↔ Satisfaction	0.117**	0.014	8.108
Relatedness ↔ Utilitarian	0.001	0.010	0.132
Relatedness ↔ Physiological	0.005	0.007	0.777

Relatedness ↔ Deontology	0.057**	0.016	3.486
Satisfaction ↔ Utilitarian	0.009	0.012	0.704
Satisfaction ↔ Physiological	-0.002	0.008	-0.270
Satisfaction ↔ Deontology	0.080**	0.019	4.126
Utilitarian ↔ Physiological	-0.037**	0.009	-4.167
Utilitarian ↔ Deontology	0.024	0.017	1.396

*Note: A correlation coefficient followed by one asterisk * is statistically significant at an alpha level of 0.05. A correlation coefficient followed by two asterisks ** is statistically significant at an alpha level of 0.01.*

Tukey Tests

Because the factor analysis revealed in Table 12 several statistically significant structural relationships, it is necessary to determine whether the constructs involved are made up of questions with statistically significant differences in responses to scale items (Wolf, Harrington, Clark & Miller, 2013). As previously discussed, statistically significant differences in responses could lead to Type I and Type II errors about the applicability of the structural model (Wolf et al., 2013). Furthermore, it is critical to determine which demographic categories are causing these statistically significant differences.

Anger/Anxiety

Anger/Anxiety, which is part of four different structural relationships, contains statistically significant differences in item responses for every demographic but one. However, only sex had enough statistically significant differences to have an impact on the structural model. Because most respondents identified as either male or female, the Tukey test is not necessary to determine which demographic categories are creating statistically significant differences in responses to anger/anxiety items. Responses of female participants are statistically different than those of male participants. Therefore, because female respondents constitute most

of the study sample, the structural relationships involving anger/anxiety apply to females more than males.

Virtue Ethics Philosophy

Virtue ethics, which is part of four different structural relationships, contains statistically significant differences in responses for six of the 11 different demographics. However, only age and sex had enough statistically significant differences to have an impact on the structural model. Because most respondents identified as either male or female, the Tukey test is not necessary to determine which demographic categories are creating statistically significant differences in responses to virtue items. Responses of female participants are statistically different than those of male participants. Therefore, because female respondents constitute most of the study sample, the structural relationships involving the construct virtue apply to females more than males.

By contrast, the Tukey test is useful in determining where are the statistically significant differences in responses for virtue ethics by age. A Tukey test revealed that teachers ages 40 to 47 had statistically different responses to virtue items compared to all other respondents. Therefore, the structural relationships involving virtue ethics do not appear to apply to respondents ages 40 to 47. The Tukey test is similarly useful in determining where the statistically significant differences in responses for virtue ethics by years of experience. The Tukey test revealed that teachers with 5 or fewer years of experience had statistically different responses to virtue items compared to all other respondents. Therefore, the structural relationships involving the construct virtue ethics do not appear to apply to respondents with 5 or fewer years of experience.

Relatedness

Relatedness, which is part of two structural relationships, contains statistically significant differences in item responses between all but two of the different demographics. However, only age and sex had enough statistically significant differences to have an impact on the structural model. A Tukey test revealed that teachers ages 31 to 39 had statistically different responses to relatedness items compared to all other respondents. Therefore, the structural relationships involving relatedness do not appear to apply to respondents ages 31 to 39. However, because most respondents identified as either male or female, the Tukey test was not necessary to determine which demographic categories are creating statistically significant differences in responses to Relatedness items. Responses of female participants are statistically different than those of male participants. Therefore, because female respondents constitute most of the study sample, the structural relationships involving the construct Relatedness apply to females more than males.

Satisfaction

Satisfaction, which is part of one structural relationship, contains statistically significant differences in responses between all but one of the different demographics. However, only age and sex had enough statistically significant differences to have an impact on the structural model. A Tukey test revealed that teachers ages 32 to 39 had statistically different responses to Satisfaction items compared to all other respondents. Therefore, the structural relationships involving satisfaction do not appear to apply to respondents ages 40 to 47. However, because most respondents identified as either male or female, the Tukey test was not necessary to determine which demographic categories are creating statistically significant differences in responses to satisfaction items. Responses of female participants are statistically different than

those of male participants. Therefore, because female respondents constitute most of the study sample, the structural relationships involving satisfaction apply to females more than males.

Utilitarian Ethics and Deontology Ethics Philosophies

Utilitarian ethics, which is part of one structural relationship, contains statistically significant differences in responses between six of the different demographics. Only ethnicity had enough statistically significant differences to potentially have an impact on the structural model. But because the sample had close to an even split of Hispanic and non-Hispanic respondents the statistically significant differences should not have enough influence to make the structural model apply more to one ethnicity over the other. By contrast, deontology ethics, which is part of three structural relationships, contains statistically significant differences in responses between four of the different demographics but no demographic had enough statistically significant differences to have an impact on the structural model.

Physiological Philosophy

The physiological philosophy, which is part of two structural relationships, contains statistically significant differences in responses between all but one of the different demographics. However, only sex and ethnicity had enough statistically significant differences to have an impact on the structural model. Most respondents identified as either male or female, meaning that the Tukey test was not necessary to determine which demographic categories are creating statistically significant differences in responses to physiological philosophy items. Responses of female participants are statistically different than those of male participants. Therefore, because female respondents constitute most of the study sample, the structural relationships involving the physiological philosophy apply to females more than males.

Ethnicity had enough statistically significant differences to potentially have an impact on structural relationships involving the physiological philosophy. But because the sample had close to an even split of Hispanic and non-Hispanic respondents the statistically significant differences should not have enough influence to make the structural model apply more to one ethnicity over the other.

To summarize, the Tukey tests in this section reveal violations of measurement systematic differences in answers to scale responses from certain demographics in the study sample. Awareness of these systematic differences helps to narrow what would otherwise be broad applications of findings. According to these Tukey tests, there were several sources of systematic differences in responses to scale items, especially between male and female respondents. This information suggests the need for caution in applying study findings. The researcher will tailor arguments in Chapter 5 to account for these systematic differences. Readers should also tailor their applications of study findings to account fully for these systematic differences.

Pathway Analysis

This researcher built the predicted pathway model in Figure 2 using the literature review in Chapter 2. However, he built the actual pathway model in Figure 4 using results from this study's exploratory factor analysis. Figure 4 looks similar to Figure 4, but Figure 4 has fewer constructs (large ovals) and items (rectangles). The researcher eliminated constructs and items during the exploratory factor analysis to generate an acceptable model fit. Furthermore, unlike Figure 2, Figure 4 includes extraction values and correlations between constructs to quantify structural relationships visually for the reader.

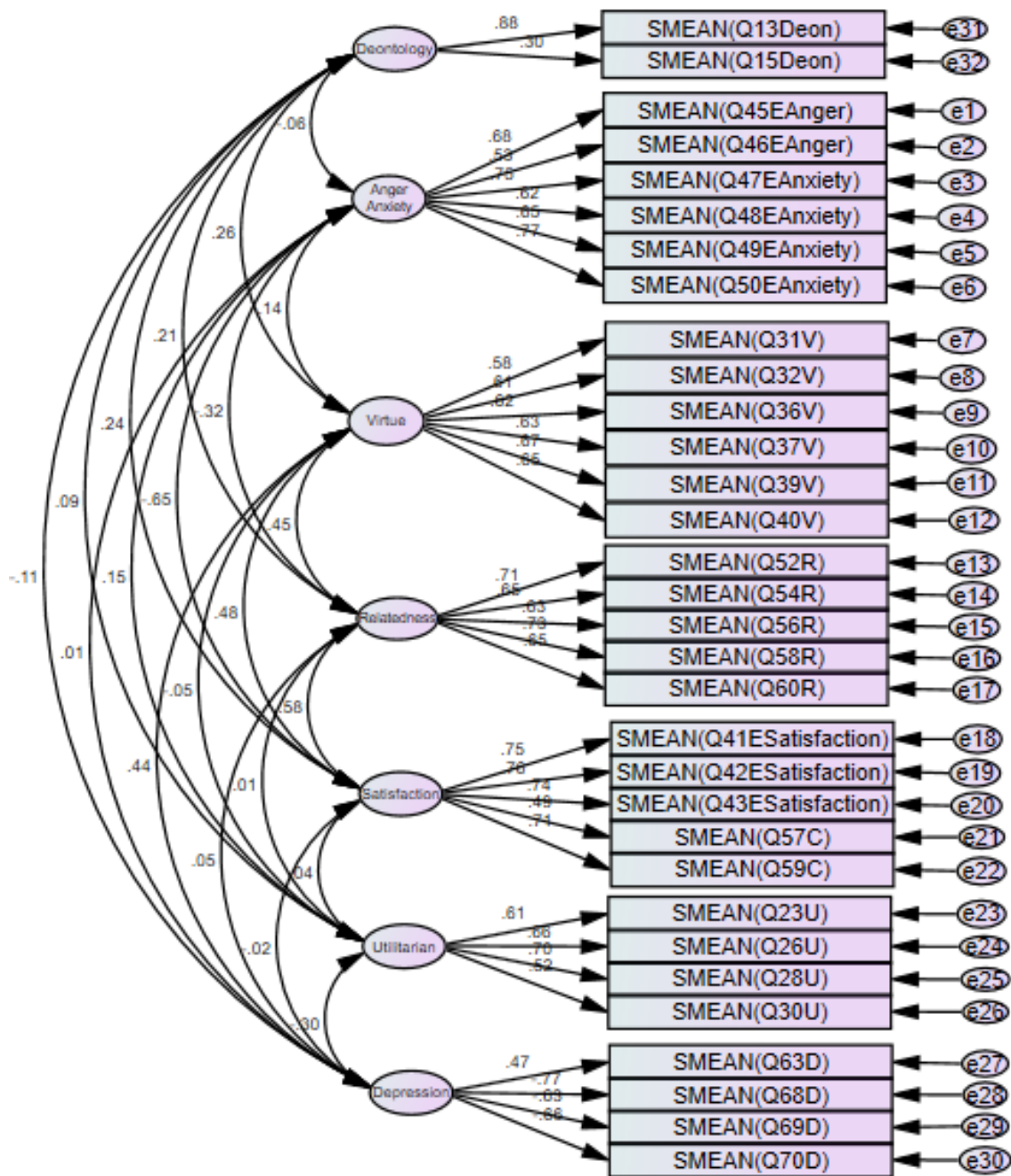


Figure 4: Actual Pathway Model for the Relationships between Seven Constructs - Philosophies of Happiness (virtue, deontology, utilitarian and physiological), Emotions (satisfaction, anger/anxiety) and Indicator of Psychological Wellness (relatedness)

Comparing Predicted and Actual Pathways for Virtue Ethics Philosophy

The correlations in Table 12 and the actual pathways in Figure 4 reveal a relationship between a virtue ethics philosophy and the following constructs: anger/anxiety, satisfaction and relatedness. The relationship is positive between a virtue ethics philosophy and satisfaction and relatedness. Therefore, as teachers in the sample espoused a stronger virtue ethics philosophy, they experienced more satisfaction and relatedness. However, the relationship between virtue ethics philosophy and anger/anxiety is negative, meaning that as teachers espoused a stronger virtue ethics philosophy, they experienced less anger/anxiety. Table 12 and Figure 4 also shows a positive relationship between a virtue ethics philosophy and deontology and physiological philosophies. Therefore, teachers in the sample with a stronger virtue ethics philosophy also tended to espouse stronger deontology and physiological philosophies.

Comparing Predicted and Actual Pathways for Deontology Ethics Philosophy

The covariances in Table 12 and the actual pathways in Figure 4 also show a positive relationship between a deontology ethics philosophy, satisfaction and relatedness. Therefore, the stronger the teachers' deontology ethics philosophy, the greater their satisfaction and relatedness. In addition, Table 12 and Figure 4 indicate a positive relationship between deontology and virtue ethics philosophies. Therefore, teachers in the sample with a stronger deontology ethics philosophy also tended to espouse a stronger virtue ethics philosophy. However, Table 12 and Figure 4 shows that survey data does not provide evidence of a relationship between a deontology ethics philosophy and anger/anxiety.

Predicted and Actual Pathways for Utilitarian Ethics Philosophy

The covariances in Table 12 and the actual pathways in Figure 4 show a positive relationship between the utilitarian philosophy and anger/anxiety. Therefore, the stronger the

teachers' utilitarian philosophy, the more anger/anxiety that they experienced. However, Table 12 and Figure 4 show that survey data does not provide evidence of a relationship between a utilitarian philosophy and satisfaction or level of relatedness. Furthermore, Table 12 and Figure 4 display no evidence of a relationship between a utilitarian philosophy and the following other philosophies: virtue ethics, deontology ethics and physiological philosophy. As a result, the survey data indicate that if teachers espoused utilitarian ethics, then they were utilitarian only.

Predicted and Actual Pathways for a Physiological Philosophy

The covariances in Table 12 and the actual pathways in Figure 4 show that survey data does not provide evidence of a relationship between a physiological philosophy and the following: anger/anxiety, satisfaction or relatedness. The constructs autonomy and competency did not emerge during factor analysis and therefore did not make it to the final structural equation model. Therefore, Table 12 and Figure 4 do support the existence of a relationship between a physiological philosophy and competency or autonomy. In addition, Table 12 and Figure 4 reveal relationships between the physiological philosophy and philosophies of virtue and utilitarian ethics. The relationship between the physiological philosophy and virtue ethics is positive, meaning that teachers who espouse a physiological philosophy also tend to believe also in virtue ethics. However, the relationship between the physiological philosophy and utilitarian ethics is negative. Therefore, teachers who follow a physiological philosophy tend to espouse a weaker utilitarian philosophy.

Conclusion

Chapter 4 described this study's sample characteristics, results from ANOVAs, the process of constructing the structural equation and the rationale for excluding certain survey items from the final model. The chapter also reported statistics representing the model fit,

extraction values and correlations from exploratory and confirmatory factor analyses. Following these statistics, the chapter reviewed a series of Tukey tests and displayed comparisons of the predicted pathway models in Chapter 3 to pathway models that emerged from the structural model.

Like the theoretical relationships between philosophies of happiness, emotions and psychological wellness presented in Chapter 2 suggest, the pathways to teacher wellness are complex. Teachers are people after all, and people are complicated. Nevertheless, the fact that some findings presented in Chapter 4 are not broadly applicable should cause the researcher or practitioner to pause and reevaluate their assumptions about teacher wellness. The purpose of Chapter 5 is to help guide the reader through this process of reevaluation. Ultimately, this process of reevaluation should help all who worry about teacher wellness to provide support to the most critical role in growing our student growth and achievement.

CHAPTER FIVE: DISCUSSION

The purpose of this study was to define the relationship between teachers' philosophies of happiness, emotions and psychological wellness. Therefore, the guiding research question was the following: What are the relationships between teachers' philosophies of happiness, emotions and indicators of psychological wellness? This chapter first offers explanations for study findings using theories within the field of psychology. The chapter then includes interpretations of study results followed by a discussion of the connections between these findings and the ancient concept of eudaimonia. The chapter concludes with sections addressing the study's practical implications and its limitations.

At the beginning of this dissertation, the concept of self-determination received much attention. It appears again in this chapter to remind the reader that self-determination theory is an overarching framework that ties together philosophies of happiness, emotions and indicators of psychological wellness. Self-determination theory argues that human beings engage in growth activities that reflect their social values and ethics (i.e. philosophies of happiness) and create a sense of self. This study found evidence that demonstrates the existence of some of these relationships, especially between the philosophies of happiness, the three basic emotions (satisfaction, anger and anxiety) and one indicator of psychological wellness (relatedness). These study findings therefore suggest that teachers can change their experience of stress through reevaluating and evolving their philosophies of happiness.

Explanation of Findings

The results in this study confirmed the existence of several predicted relationships between philosophies of happiness, emotions and one of the aspects of psychological wellness (relatedness) that theory says should exist. However, the results in this study also failed to

provide evidence of some predicted relationships between philosophies of happiness, emotions and psychological wellness, e.g. the predicted connection between utilitarian ethics and satisfaction. This section will provide more in-depth explanation of relationships that the study uncovered. More important, this section will offer possible explanations why study results did not reveal relationships between philosophies of happiness (virtue ethics, deontology, utilitarianism and physiological philosophy), emotions (satisfaction, anger and anxiety) and indicators of psychological wellness (relatedness, autonomy and competency).

Relationships with the Virtue Ethics Philosophy

This study found evidence of a positive relationship between the virtue ethics and satisfaction, and a negative relationship between virtue ethics, anger and anxiety. There are likely two main explanations for these findings. Teachers who espouse virtue ethics consciously or unconsciously set goals to display certain virtues. When they do not display these virtues, then they likely experience anger and anxiety because they are not achieving their goals (Ben-Ze'ev, 2000). Furthermore, teachers who espouse virtue ethics have future expectancy that they will have a certain level of control over which virtues they display. They likely experience anger and anxiety from the uncertainty associated with not having control over their ability to display desired virtues (Roseman, 2001). Teachers' virtue ethics philosophy should have been related to their satisfaction, anger and anxiety. Teachers would experience satisfaction when they, for instance, forgive students who misbehave or when they courageously defy out-of-touch district policies to provide students the learning environment they need. Teachers would experience anger and anxiety when they, for example, lose their temper with misbehaving students or cower in the face of district administrators reprimanding them for not following district policies.

In addition, this study found evidence of the positive relationship between the virtue ethics construct and relatedness. The virtue “caring” illustrates a possible explanation of these findings. Teachers’ decision to be caring is associated with their beliefs about teacher-student relationships. If these teachers’ decision to care for others is associated with their beliefs about the importance of compatibility, then it could have an impact on their relatedness to others. If they perceive more compatibility with their administrators, colleagues and students, then they will decide to care about and build relationships with them (Knee, Patrick & Lonsbary, 2003). The virtue ethics philosophy should have been positively related directly to teachers’ relatedness. Teachers would experience relatedness when their administrators, colleagues and students share their virtues. By this same logic, teachers would experience less relatedness when their virtues do not align to those of their administrators, colleagues and students, because of conflict resulting from questioning each other’s actions.

Relationships with the Deontology Ethics Philosophy

This study found evidence of a positive relationship between the deontology ethics and satisfaction, but not between deontology ethics, anger and anxiety. One possible explanation for the relationship between deontology philosophy and satisfaction is teachers’ fulfilling of an emotional calling to care for children—particularly those from low socioeconomic backgrounds. These teachers carry a missionary zeal that drives their desire to fulfill their calling (Day & Quing, 2009). The deontology philosophy should have been positively related to satisfaction. A deontology ethics philosophy could cause teachers to experience satisfaction when their actions in the classroom align to their sense of duty to students and society. Furthermore, the deontology philosophy should have been associated with teachers’ experience anger and anxiety. A deontology ethics philosophy could cause teachers anger and anxiety when there are school or

district-level structural factors such as mandatory curricula or zero-tolerance policies that keep them from being able to honor their sense of duty.

One way to explain the lack of any sort of relationship between deontology ethics, anger and anxiety is the possibility that teachers in the sample who feel a sense of duty to their students and society usually fulfill their perceived obligations. If these teachers tend to do what they feel is necessary to fulfill their obligations, there should be no related experience anger and anxiety. There is some general evidence to support this explanation. De Saxe and Gourd (2018) present several current and historical examples of what they call teacher resistance in schools. They argue that teachers have frequently resisted school and district policies that discriminated against minority students. These acts of resistance are illustrative of teachers' sense of duty to bring about social justice in their schools. Because these teachers did what was necessary to fulfill their duty, they likely did not experience any associated anger and anxiety. At the same time, this study does not provide proof that deontologist teachers outside of the sample would not experience anger and anxiety. This study just does not provide any evidence that they would.

In addition, the deontology philosophy should have had a positive relationship to relatedness. Teacher-student relationships could result from teachers' devotion to their students. Teachers devote time and energy to ensure that their students grow personally and academically. Devoting this time and energy creates a sense of purpose, which perpetuates teachers' desire to serve and care for their students. The care teachers exhibit builds students' feelings of trust and mutual affection (Day & Quing, 2009). Furthermore, teachers feel this sense of duty for their students, because as deontologists they believe in the inherent value of their students. Kant would say that they believe that students are ends in themselves that do not require any specific outcomes to be valuable. Teachers also feel this sense of duty because their students are young,

vulnerable and in need of care and protection. This study found evidence of a positive relationship between the deontology philosophy and relatedness in the sample.

Relationships with the Utilitarian Ethics Philosophy

This study found evidence of a positive relationship between utilitarian ethics, anger and anxiety but not with satisfaction. One possible explanation for the lack of relationship between utilitarian ethics and satisfaction is that utilitarian ethics do not facilitate the development of teacher-student relationships that are crucial for student achievement. The utilitarian philosophy should have had a positive relationship to satisfaction, anger and anxiety. A utilitarian philosophy could lead teachers to experience satisfaction when their students demonstrate mastery of course content as a result of well-planned lessons. By contrast, the utilitarian philosophy could cause teachers to feel anger and anxiety when their students, despite all efforts, fail their exams.

Pure utilitarian teachers could view their relationships with students only as a means to encourage student cooperation and ultimately raise student standardized test scores. These utilitarian teachers would experience anger and anxiety, and possibly lash out or dissociate themselves when students do not cooperate and earn low test scores. Students might then realize that the nature of their relationships with the utilitarian teacher are conditional and therefore transactional and artificial. Students could then feel like they do not have relationships with their teacher at all, which could have a negative impact on their achievement. A meta-analysis of 99 studies confirm the existence of this relationship between student-teacher relationships and student achievement. The meta-analysis revealed consistent study findings that stronger relationships were associated with higher student engagement and achievement indicators (Roorda, Koomen, Spilt, & Oort, 2011).

Relationships with the Physiological Philosophy

The results of this study do not confirm the existence of any relationship between the physiological philosophy and the emotions satisfaction, anger and anxiety. One possible explanation for the lack of evidence to confirm this relationship is that because depression is a physiological disorder associated with malfunctioning biological processes, people experience depression and its related emotions despite whether they believe in it. The physiological philosophy should have been positively related to satisfaction and negatively associated with anger and anxiety. A physiological philosophy could help teachers recognize their own feelings associated with depression. Teachers could then either find satisfaction in controlling the symptoms of their disorder in a stressful classroom or anger and anxiety from losing control.

Another possible explanation of the lack of evidence to confirm the positive relationship between the physiological philosophy and the emotions satisfaction, anger and anxiety is the variety of coping mechanisms people use to manage their depression. Teachers who recognize that they are suffering from depression might choose to treat their symptoms with psychotherapy and medication. These treatments could then eliminate their anger and anxiety, thereby erasing the relationship between these emotions and their physiological philosophy. On the other hand, teachers who are aware of their depression might decide not to seek treatment due to stigma and a fear of being labeled mentally ill (Campbell & Mowbray, 2016). These teachers would not likely experience anger, anxiety and satisfaction due to their physiological philosophy, because it did not lead them to take control of their symptoms. They would more likely experience anger, anxiety and satisfaction in association with the severity of their depressive symptoms. For these teachers, the physiological philosophy would not have any impact.

In addition, items in the survey measuring competency and autonomy did not end up in the final structural model. These items had low extraction values and either double or triple loaded under different factors, probably because the competency and autonomy items lacked internal validity or unidimensionality. Therefore, there might actually be a positive relationship between the physiological philosophy, competency and autonomy but this study was not able to detect it. The physiological philosophy should have also been positively related to competency and autonomy. Teachers should experience feelings of competency and autonomy when they are more knowledgeable about depression and are able to develop coping mechanisms either on their own or by seeking professional help.

Relationships between Relatedness and Emotions

This study found evidence of a positive relationship between relatedness and satisfaction. One explanation for these findings is the relationship between teachers' emotional well-being, coping skills and resiliency, which they develop in interaction with others. These resources help teachers develop positive emotions (Fredrickson, 2004). For instance, teachers with close relationships empathize with each other as they share their feelings. Teachers also share ideas on how to cope with difficult situations. As a result, they experience more satisfaction when their stress decreases. Relatedness should have been positively related to satisfaction, because as teachers develop relationships with their administrators, colleagues and students they could feel a shared sense of duty, which could lay the groundwork for comradery and friendship. Furthermore, as teachers experience more satisfaction, they could become more pleasant companions.

In addition, the study did not find evidence of the relationship between relatedness, anger and anxiety. One potential explanation for these findings is that teachers with little relatedness

may have other ways of decreasing their feelings of anger and anxiety than sharing their feelings with others. For instance, teachers with low little relatedness might have a lot of autonomy in their workplace. Teachers with more autonomy experience psychological wellbeing (Bottery, 2003). Anger and anxiety should have been negatively associated with relatedness. As teachers experience less relatedness, they have fewer people with which to process and work through their anger and anxiety. Furthermore, when teachers are unable to process and work through their anger and anxiety, they might lose their temper and dissociate themselves from their colleagues and students.

Interpretation of Findings

The findings of this study also support several interpretations that could help explain the broader meaning of relationships between philosophies of happiness, emotions and psychological wellness. This section presents three interpretations, which lead into the connections between study findings and the concept of eudaimonia.

Importance of Intrinsic Rewards

The results of this study demonstrate that teachers' virtue and deontology ethics were positively related to satisfaction. Virtue and deontology ethics both involve belief systems that generate satisfaction through intrinsic rewards such as engaging in intellectualism rather than materialism. Therefore, as virtue and deontology ethics increase, so did respondents' experience of intrinsic rewards. For instance, a teacher who believes in social justice and dedicates her life to teaching students the importance of social tolerance would find pleasure in doing what she believes is morally correct, even though she may not receive recognition. As a result, this study also demonstrates the importance of intrinsic rewards to teachers.

Intrinsic rewards have three main characteristics that are important for the reader to remember as they contemplate teacher intrinsic rewards. First, intrinsic rewards are satisfaction that comes from engaging in an activity (Cameron, Banko, & Pierce, 2001). For example, an educator teaching social justice could experience intrinsic rewards from engaging in discussion. Second, the effectiveness of intrinsic rewards depends on the strength and influence of extrinsic rewards (Cameron et al., 2001). External rewards can decrease the strength of intrinsic rewards on motivation. For example, a teacher expecting to receive a large bonus if their students pass the state standardized test could decide to run uninspiring memorization drills rather than encourage joyful and animated discussion of ideas. Third, the effect of extrinsic on intrinsic rewards depends on the context (Cameron et al., 2001). For instance, intrinsic rewards decrease when people know about and expect extrinsic rewards before engaging in an activity. As a result, a teacher will enjoy after-school tutoring more if they do not know beforehand that their principal will pay them a bonus.

The positive relationship of virtue and deontology ethics to intrinsic rewards suggests that teacher relatedness depends on the alignment between their activities, virtues and sense of duty. If schools expect teachers to engage in activities that contradict their virtues or violate their sense of duty to students, then teachers will experience less relatedness. The relationship between virtue and deontology ethics and intrinsic rewards also suggests that promoting wellness for some teachers does not involve money. Wellness for teachers who espouse virtue and deontology ethics involves aligning school values to teacher values and beliefs.

Harm from Focusing Too Much on Outcomes

Study results reveal a positive relationship between the utilitarian ethical philosophy and anger or anxiety. As teachers' utilitarian orientation strengthens, they tend to experience more

anger and anxiety. As a result, the importance that the utilitarian philosophy places on outcomes is positively related to anger and anxiety. This relationship between outcomes, anger and anxiety could be due in at least in part to academic outcomes-based accountability regimes in schools. These accountability regimes increase teachers' anger and anxiety, because of the dire consequences for having poor student outcomes. For instance, accountability regimes decrease teacher choice of what they teach and how they teach it. These accountability regimes can also impose unrealistic targets, and either micromanagement or surveillance. Furthermore, many school districts in the United States fire teachers for poor student outcomes, and in some states the government closes schools for persistent poor performance (Mathison & Freeman, 2006).

Accountability regimes and a focus on strong academic outcomes will not likely change in the near future, and it is not clear that it should. However, the findings of this study suggest that unless teachers who espouse a utilitarian philosophy develop coping mechanisms to manage their anger and anxiety, their overall wellness could suffer. People who experience chronic anger and anxiety can develop depression and physical health problems (Suls & Bunde, 2005). Therefore, teachers who espouse utilitarian ethics have a philosophy that poses challenges to wellness in a profession that is focused on high-stakes academic outcomes and school districts with many low-achieving students. Therefore, to fix the underlying source of teachers' anger and anxiety, they might have to reexamine the utility of their philosophy in their education career.

Predisposition to Seek Growth Opportunities through Relationships

Human beings have innate impulses to engage in activities that help them grow. Humans also have a natural drive to satisfy basic psychological needs, especially to build relationships (Ryan & Deci, 2000). Therefore, it is no wonder why this study revealed a positive relationship between teachers' virtue and deontology ethics and relatedness. Vygotsky (1987) argues that

growth in learning is inherently a social experience. He contends that human beings reach a limit to their cognitive experience that expands during social interaction. People use language in social interaction, which is necessary for the structured coherent thought involved in processing experiences (Vygotsky, 1987). Therefore, teachers make meaning and learn from their experiences through social interaction with students and colleagues that they would not have otherwise been unable to create.

By contrast, teachers who espouse pure utilitarian ethics value extrinsic rewards from good outcomes. Because the learning that results from building relationships and interacting with others might not generate extrinsic rewards, teachers who espouse utilitarian ethics might not see the need to build relationships with others. To be clear, the results from this study do not indicate that utilitarian teachers do not value or seek relatedness. The results only show that as a teacher's utilitarianism increases or decreases, their relatedness does not change. However, a utilitarian teacher's relatedness could change if they also espouse virtue or deontology ethics in certain contexts. As already discussed in Chapter 2, teachers can espouse more than one philosophy of happiness.

Connections of Findings to Eudaimonia

Wellness through Actualizing a Teacher's Potential

Teachers work in a high-stakes environment full of social problems such as poverty that cause stress, burnout, depression and job turnover. The study began with the premise that despite the flood of school-related stressors, teachers have the ability increase their wellness.

Furthermore, it proposed that teacher philosophies of happiness were associated with their emotions and psychological wellness. This study uncovered several of these relationships. The study also, in particular, demonstrated the association between seeking good outcomes and the

experience of anger and anxiety. Therefore, these findings reiterate the teachings of classical philosophers in the ancient Mediterranean. These philosophers conceived of wellness as eudaimonia, a process of living well, and not as the achievement of outcomes, whether they be hedonistic accumulation of wealth and power or otherwise. These philosophers believed that living well involved the actualization of human potential by seeking virtue and knowledge, and by doing one's duty (Deci & Ryan, 2000).

This study's findings also illustrate Abraham Maslow's more modern concept self-actualization. Maslow theorized famously that self-actualization sat at the pinnacle of a hierarchy of needs. After a person satisfies each level of need on the hierarchy, they achieve self-actualization. He argued that a self-actualized person has a high level of logic and reason, accepts themselves as they are, are alone but not lonely and rely on themselves for satisfaction (Maslow, 1971). However, as Hanley and Abell (2002) argue, Maslow's theory of self-actualization conceived of relationships too narrowly as a vehicle for personal growth that ultimately occurs in the solitary depths of one's own mind. These researchers argue that the role of relationships in self-actualization is much more important than Maslow ever imagined. Relationships are the very substance of self-actualization, because living and learning is a social experience (Hanley & Abell, 2002).

Therefore, this study's findings demonstrate that teacher wellness is not a simple state of being where educators experience a never-ending stream of positive emotions. Wellness is a social process in which teachers live out their most treasured virtues, devote their lives to service and as a result engage in life-long learning. Moreover, a teacher is not necessarily unwell due to stress, burnout and depression. Many teachers who live well experience stress, burnout and depression. These teachers can exercise, vacation and (if necessary) get psychotherapy and take

anti-depressant medication. And once the physiological effects of stress, burnout and depression subside, they can continue living well according to their virtues and service. As the results of this study indicate, a teacher could be unwell if they do not have a system of treasured virtues and a sense of duty. Teachers without virtues or a sense of duty likely experience stress burnout and depression like those who live well. However, no amount of exercise, vacation time or medication is ever enough to make them eager to content to go to a job that demands so much of their time and energy.

Wellness through Virtue and Duty

The classroom can be a lonely place for a teacher. Many teachers are the only adults in their classrooms all day and peer interaction can be limited to a quick chance encounter at the copy machine or during the mad dash to the parking lot after working overtime. As a result, many do not have the opportunity to socialize and commiserate. These peer interactions and the relationships that result are crucial components to a teacher's psychological health and wellbeing (Nias, 2005). The results of this study revealed a positive association between virtue, duty, satisfaction and relationships. However, study results failed to demonstrate a relationship between utilitarianism, satisfaction or relationships. Therefore, these findings demonstrate the centrality of human connection to wellness and the potential role that virtue and duty play in fostering relationships.

The centrality of relationships to satisfaction has one simple and well-supported explanation. Relationships create a stress buffer, because human interaction involves communication where people process and mitigate their feelings of stress. Relationships also create emotional and physical support networks where people help each other to solve problems and complete stressful tasks (Cohen, 2004). By contrast, the potential role of virtue and duty in

fostering relationships is slightly less obvious. To understand the connection, one must remember that virtues and a sense of duty are cultural constructs. People learn virtues a sense of duty from their parents and societal institutions such as school and church. People live out their virtues and sense of duty to create harmony between their beliefs and actions. Furthermore, they live out their virtues and sense of duty because doing otherwise could put them at risk of social exclusion. As a result, peoples' virtues and sense of duty originates from their relationship to others and simultaneously reinforces their relationships.

Implications for Practice

This study revealed much about the relationships between teachers' philosophies of happiness, emotions and indicators of psychological wellness that could have a positive impact on their teachers and schools. Therefore, school district leaders and policymakers can benefit from considering some implications that could have a positive impact on their schools. Their teachers' philosophies of happiness, emotions and indicators of psychological wellness may be not exactly the same as those in this study. However, judging how close this study's findings were to theoretical predictions in Chapter 2, teachers' philosophies of happiness, emotions and indicators of psychological wellness should be similar regardless of geography in the United States.

Better Self-Knowledge for Teachers

For many teachers, teaching is not only an occupation, but also a life's calling to improve children's lives and make their country a better place to live. As a result, teaching is not a mere profession, but also part of teacher identity. Friesen and Besley (2013) explore teacher identity in their study of a cohort of first-year educators. They used Eric Erickson's theory of identity development, which states that people develop who they are by encountering and overcoming

crises that push them to consider what their roles are in society. Friesen and Besley (2013) found that teachers' identity in teaching was closely linked to their personal and social identities. For instance, a new educator who grew up in a predominantly white city will develop elements of their identity when they teach in an urban school that is majority African American. These identity elements will develop as the teacher comes to grips with the existence of racism and white privilege.

The results of this dissertation study build on previous studies on teacher identities and suggest a way of helping educators understand who they are in the context of their workplace. For instance, the results define and characterize utilitarianism among teachers. The analysis then explains the consequences being a teacher with utilitarian values. Being able to name a teacher's philosophies of happiness have two main benefits. First, naming a person's philosophy helps clarify and legitimize their system of beliefs and values. For instance, a teacher who identified as purely utilitarian to colleagues could justify their intense focus on student outcomes and avoid criticism that they do not care about holistic child development. Second, naming a person's philosophy can provide space for discourse with colleagues about beliefs and values. From this discourse, teachers could understand better the contradictions between their beliefs and actions. For example, a teacher who feels an overriding sense of duty to their students might discover contradictions between their simultaneous support for zero tolerance policies.

One way of helping teachers to identify and understand their philosophies of happiness would be to have them complete a wellness philosophy inventory, either during orientation or professional development. Facilitators could administer the inventory and have teachers read and reflect upon their results using materials to help them understand what their philosophies are and what their emotions and psychological wellness might be in stressful classroom situations.

School leaders could then revisit the results of these inventories with teachers during times of stress and personal or professional crisis.

Matching Roles to Dispositions

An old adage in education states that a truly good teacher can teach any subject to any grade level. Every subject and grade level require strong lesson plans, student engagement, classroom procedures and consistent discipline—in short, the basics of good teaching. If teachers can master the basics of teaching, they should be a good match for any classroom. But in truth some teachers may be better suited to certain types of classrooms over others. For instance, some teachers could be better suited to teach middle and high school, because they desire more intellectual stimulation. Donaldson and Johnson (2010) explore the impact of matching teachers to grade level and subject matter in their study involving 2,029 Teach For America teachers. These researchers found a statistically significant relationship between teacher content and grade-level assignment and teacher turnover and attrition. They conclude that when schools mismatch teachers to grade level and subject matter, teachers have more turnover and attrition.

Teachers can sort themselves into the classrooms to which they are best suited by the certifications they get. However, school principals can also have influence over what students and subjects that teachers will teach. Therefore, it is crucial for principals to have as much information about teachers' dispositions as possible. They need to understand teachers' style, areas of strength and, most important, temperament.

School leaders could administer the scales in this study to identify and describe teachers' philosophies of happiness. They could then use the results to discuss suitable teaching roles with teachers, given what they know about the relationships between teacher philosophies of happiness, emotions and indicators of psychological wellness. For instance, if a teacher has

strong deontological ethics, they could be highly suitable to a role in special education. Special education positions require a high level of patience and dedication, especially when students act out or when they take longer to learn new material than a general education student. Special education classes would likely lead to deontologist teachers to feel satisfied from fulfilling an important duty. Furthermore, if a teacher had strong utilitarian ethics, they could be best suited to working with students in lower-stakes classrooms. Lower-stakes classrooms do not require teachers to focus on outcomes from high stakes standardized tests. Classes with high-stakes testing would likely lead utilitarian teachers to become angry and anxious if students do not perform well.

Reflective Spaces at School

Districts typically divide a teacher's school day into a series of class and planning periods. According to the Texas Education Code Section 21.404, teachers must by law receive 450 planning minutes every two weeks. Teachers receive planning periods to write lesson plans, grade student work and contact parents. Teachers also use their planning periods to decompress emotionally and reflect, especially after stressful class periods. Decompression and reflection time are important for teacher mental health. Kosir, et al.'s (2015) study of 439 elementary teachers demonstrates that reflection time moderated the relationship between job characteristics and stress. As reflection time increased, teacher stress decreased. However, teachers' ability to decompress and reflect depends on the number of expectations their principals place on them. For instance, a teacher's planning time could quickly disappear if principals require detailed lesson plans, extensive feedback on student work and excessive paperwork. Therefore, principals should moderate their expectations if they expect teachers to manage stress effectively.

One of the ways teachers could relieve stress during planning time is to reflect upon their philosophies of happiness. This type of reflection would be particularly helpful when teachers experience so much chronic stress that they ask themselves if they are happy and whether they should consider changing professions. Reflecting upon philosophies of happiness might help a teacher realize that their career, despite the stress, does make them happy because it enables them to fight for educational equity. This teacher might realize further that their desire to fight for educational equity comes from a deep belief in their duty to end injustice. Reflecting upon philosophies of happiness might help another teacher realize that their career saps all the pleasure out of their life, because it consumes most of their free time. As a result, this teacher might ask their principals for fewer time-consuming duties or simply realize that they would be happier in a different career.

Evaluation and Professional Help

Teaching can be a stressful for any teacher. However, the teaching profession can be even more stressful for teachers with mental disorders such as clinical depression or bipolar disorders. Prolonged anxiety and emotional exhaustion from stress can amplify the symptoms of these types of mental disorders, thereby creating even worse physical health problems and higher than average suicide rates. For instance, in a study of 80 adults, Nestadt et al. (2001) found that patients with obsessive-compulsive disorder (OCD) frequently suffer simultaneously from depression. These researchers argue that suffering simultaneously from a mental disorder and depression complicates treatment of OCD. Furthermore, in a study of 27,236 people (10,155 with OCD), Meier, Mattheisen and Mors (2016) found a higher likelihood of death among people with OCD due to co-factors such as depression and self-medicating substance abuse.

Much of the literature on teacher stress and burnout prescribe relaxation and reflective practices to manage chronic stress. For instance, some researches recommend the use of inquiry-based stress reduction, which involves meditation, identification of causes of stress and reflective questions about why something causes a person stress (Schneider-Levi et al., 2017). Other researchers point to the need to increase emotional intelligence to prevent burnout. Emotional intelligence is a person's ability to identify and process feelings (Zysberg et al., 2016). Some researchers even recommend teachers have a reduced workload so that they can do their job at a relaxed pace (Helou et al., 2016)

However, for some people emotional exhaustion, anxiety and mental disorders are not temporary inconveniences to overcome with meditation, social support and relaxation. To some teachers, emotional exhaustion, anxiety and mental disorders can be fatal. Therefore, school districts should provide psychological and clinical support to teachers experiencing exhaustion, anxiety and mental disorders. For instance, schools and districts could contract psychotherapists to provide one-on-one sessions and organize support groups for teachers in crisis to process their feelings and develop coping mechanisms for stress. One way in which these therapists and group facilitators could help these teachers develop coping mechanisms is by helping them understand better their philosophies of happiness. For instance, the therapist or facilitator could help some of these teachers by educating them about depression and referring them to a physician who might prescribe them anti-depressants.

Furthermore, school psychotherapists could help teachers reevaluate and evolve their philosophies of happiness to help them manage stressful situations that arise in their classrooms. This type of reevaluation and evolution is indeed already a part of the practice of psychotherapists. Horowitz (2018) argues that psychotherapists can change their patients'

dysfunctional beliefs and relationship patterns, not to mention their unproductive emotional coping strategies and harsh self-criticisms. This researcher also argues that psychotherapists can help their patients reevaluate their identities and help set future goals to improve their overall wellness. Therefore, school psychotherapists helping teachers reevaluate and evolve their philosophies of happiness would not need to change any of their current practices or learn new treatment strategies. They would simply need to learn more about the strengths and challenges associated with each philosophy of happiness in improving and maintaining teacher wellness.

Design of a Toolkit for School Districts

The literature in this day and age is vast on reflective practices in professional development. However, other than the William Perry (1970) and his contemporaries' work on epistemology development with pre-service teachers, there has been little done in the United States to help teachers understand and potentially reevaluate and evolve their belief systems on happiness. Belief systems have been seen as essential and static, meaning that teacher happiness (or lack thereof) was only a product of teacher responses to environmental factors. This dissertation study traced back happiness to teachers' belief systems and suggested that philosophies of happiness could evolve to serve teachers in classroom environments that would probably always be stressful places.

Therefore, school leaders need to develop an understanding of philosophies of happiness and tools to help teachers reevaluate and evolve them. School leaders should first read the classical works by Aristotle, Kant, Mill and Foucault that this dissertation researcher discussed in the literature review in Chapter 2. These works provide an overview of assumptions, considerations and examples that are necessary to discuss the strengths and challenges of teachers' philosophies of happiness. Some might view this as an unnecessary indulgence or

possibly a time-consuming challenge for educators. However, there are countless contemporary analyses of these classical works that school leaders could use instead to make them more easily and quickly consumable. Furthermore, the depth of understanding that school leaders could bring to the discussion of philosophies of happiness would more than outweigh any time that they spend reading about these classical philosophies. Education is, after all, a learning profession.

School leaders should then administer an inventory of teachers' philosophies of happiness, similar to the scale items part of the survey in this dissertation study. They can administer this inventory once only or multiple times during the school year to detect when teacher philosophies of happiness change. The results of this inventory can be a point of discussion during coaching conversations or during professional development activities. Finally, school leaders should develop protocols for discussing philosophies of happiness that encourage teachers to set and work toward wellness goals. These protocols could involve guiding questions for teachers, response stems for coaches and templates for setting wellness goals.

Implications for Surveyed School District

The findings in this study are good news for the district surveyed in this study. As the median and mode tables in Chapter 4 demonstrate, the majority of teachers in the district espouse virtue and deontology ethics. Virtue and deontology ethics are associated with more relatedness and satisfaction, which important for coping with and reducing stress. Therefore, teachers in the surveyed district should be able to cope with and reduce their job-related stress. This is especially important given the district's high rates of student mutual combat, assault, gang violence and drug-use (Texas Education Agency, 2019). Teachers in this district need to have ways of coping with and reducing stress in this environment.

However, the findings also indicate that the district would do well to provide all teachers, especially those who espouse utilitarian ethics and physiological philosophies, with an awareness of the association between their philosophies of happiness, emotions and indicators of psychological wellness. As the median and mode tables in Chapter 4 show, a sizeable minority of teachers in the surveyed district espouse utilitarian ethics and physiological philosophies. Utilitarian ethics are associated with more anger and anxiety, and the physiological philosophy is not related to any indicators of psychological wellness. This means that teachers who espouse utilitarian ethics and physiological philosophies may not have the same ability to manage and reduce their stress. Furthermore, their environment in the district could cause them to experience burnout, depression and even physical health problems. These problems can and should be prevented.

Study Limitations

As discussed in Chapter 3, the findings from this dissertation study have the potential to help teachers transform their experience of stressful situations. Findings from this study also have the potential to help schools and districts improve teachers' psychological wellness by increasing their awareness of philosophies of happiness and emotions. Two potential limitations were clear from the start of the study. First, this study limits its analysis to only four major western philosophies of happiness. Therefore, study results will have limited applicability to teachers who, for instance, espouse eastern philosophies of happiness such as Buddhism and Taoism. Second, this study only collected teacher responses from one urban school district. Therefore, the study may lack applicability to rural teachers whose challenges may differ due to factors such as demographics and school sizes.

However, one other limitation comes from the methodology. Typically, researchers using structural equation modeling test for violations of measurement invariance. Measurement invariance indicates that an item in a scale measures a concept the same way among all respondents. If there is a problem with the design of an item, measurements of invariance can detect it. This dissertation researcher did not conduct a measurement of invariance, because the researchers who created most of the scale items in this study already did so. Meredith (1993) suggests that this limitation is a minor one when he argues that measurement invariance is an ideal but is not always possible to implement in practice even after a researcher tests for it. Therefore, even if this study had involved a measurement of invariance, there would be no guarantee the researcher would be able to eliminate it.

Conclusion

The purpose of this study was to define the relationship between teachers' philosophies of happiness, emotions and psychological wellness. Understanding the relationship between these constructs could help teachers, principals, district leaders and lawmakers put structures in place to reframe the experience of stress in the classroom. Chapter 5 first offered explanations for study findings on the relationship between teachers' philosophies of happiness, emotions and psychological wellness using theories within the field of psychology. The chapter then presented interpretations of study results followed by a discussion of the connections between these findings and the ancient concept of eudaimonia. The chapter concluded with sections addressing the study's practical implications.

Most teachers would probably agree that there are some incontrovertible truths about the teaching profession. Some lesson plans will not work out and classroom disruptions will occur daily. Some students will struggle academically, and some will fail their standardized tests. Some

students will suffer from poverty, and some may report abuse or neglect. Some students will misbehave, and some may drop out. These teachers would also likely agree that the weight of all these realities remains on their shoulders as they leave their empty schoolhouse, drive home, hug their families and lay their heads down to sleep. Few teachers likely welcome the stress that comes with their profession. However, teacher reactions to these realities and stress differ. Some wear their resilience to these realities and stress like a badge of honor and some use them to justify a career change.

This study did not offer a magical cure-all for school-related stressors. Many of these stressors are rooted in sociohistorical and sociopolitical realities such as poverty that decades of policy making have not been able to fix. However, this study did provide one way of changing teachers experience of these immutable stressors—by understanding and potentially modifying their philosophies of happiness. Understanding and modifying philosophies of happiness is no less complex than changing sociohistorical and sociopolitical realities such as poverty. It involves unwinding and refashioning lifetimes of cultural teachings. Nevertheless, understanding and modifying philosophies of happiness is within teachers' immediate sphere of influence. If understanding and modifying philosophies of happiness enables teachers to change their experience of stress and improve their psychological wellness, they could be more likely to remain in their profession and decrease turnover. And even if understanding philosophies of happiness does not change teachers' experience of stress, it could still potentially help them make a career change that would ultimately improve their psychological wellness too. In either case, students would end up with teachers who are happier, healthier and better able to meet their needs.

APPENDICES

The following appendices include documents related to the research the author conducted in this study. The survey in Appendix 1 has the exact questions that the researcher asked teacher respondents. The survey in Appendix 1 organizes questions by scale. For instance, all of the virtue ethics scale items on the survey in Appendix 1 appear in the same section to enable the reader to understand immediately how the researcher is measuring this construct.

APPENDIX 1

Demographic Measures (Multiple Choice)

1. How old are you? (free response)
2. What is your sex? (0-Male; 1-Female; 2-Other)
3. What is your race? (0-Black; 1-White; 2-Asian; 3-Middle Eastern; 4-Pacific Islander; 5-Multiracial; 6-Other)
4. What is your ethnicity? (0-Hispanic; 1-Non-Hispanic)
5. How many dependent family members live in your household? (free response)
6. What is your highest level of education? (0-Bachelors; 1-Masters; 2-Doctorate)
7. How many years have you been a teacher? (free-response)
8. Have you ever left one teaching job for another? (0-Yes; 1-No)
9. What school level do you teach? (0-Elementary; 1-Secondary)
10. What certification route did you take to become a teacher? (0-Traditional University Certification; 1-Alternative Certification; 2-Other; 3-Not Certified)
11. Is teaching the only career you have ever had? (0-Yes; 1-No)
12. Have you ever considered leaving the teaching profession altogether? (0-Yes; 1-No)

Deontology Ethics Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

13. Some rules—especially universal ones—should never be broken no matter the possible gain.
14. The consequences of an action are not the only factor in deciding if an action is moral; even if the consequences of the action are positive.
15. If an action is a violation of societies' most basic rules it should not be committed; even if it will result in a large amount of good.
16. Certain rights and freedoms are inalienable and should never be violated.
17. The results of an action are not enough to justify that action.
18. It is morally unacceptable to consider only the good that might come from an action when deciding how to behave.
19. You should never treat people in a manner where they are means to a greater end.
20. Sometimes the morally correct thing to do causes more pain than happiness.

Utilitarian Ethics Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

21. Moral actions are the ones that create the most good; even if the act itself initially causes harm or pain to some people.
22. The needs of the many always outweigh the needs of the few or the individual.
23. When deciding what action to take the only relevant factor to consider is the outcome of the action.
24. If an action leads to a greater good then you should do it.
25. Rules and laws should only be followed when they maximize happiness.
26. Whether one has maximized happiness is the only standard by which one should measure the success of one's life.

27. Allowing people to experience pain and suffering in the name of maintaining a set of principles is morally unacceptable.
28. The only moral principle that needs to be followed is that one must maximize happiness.
29. People that fail to maximize happiness are doing something morally wrong.
30. The result of one's actions is all that matters when deciding if they have acted morally.

Virtue Ethics Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

31. It is important that I consider carefully all the information available before making an important decision that impacts others.
32. It is important that I consider the consequences of my actions.
33. It is important to make the morally best decision in a given situation.
34. I am not overly concerned with my personal power.
35. I am not overly concerned with my own accomplishments.
36. It is important to give credit to others when credit is due.
37. It is important to demonstrate respect for all people.
38. I do not take credit for the accomplishments of others.
39. It is important to respect the rights and integrity of others.
40. It is important to treat others as I would like to be treated.

Emotions Scale Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

41. I generally enjoy teaching.
42. I generally have so much fun teaching that I gladly prepare and teach my lessons.
43. I often have reasons to be happy while I teach.
44. I generally teach with enthusiasm.
45. I often feel annoyed while teaching.

46. Sometimes I get really mad while I teach.
47. I generally feel tense and nervous while teaching.
48. I am often worried that my teaching isn't going so well.
49. Preparing to teach often causes me to worry.
50. I feel uneasy when I think about teaching.

Indicators of Psychological Wellness Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

51. I feel like I am free to decide for myself how to live my life.
52. I really like the people I interact with.
53. People I know tell me I am good at what I do.
54. I get along with people I come into contact with.
55. I generally feel free to express my ideas and opinions.
56. I consider the people I regularly interact with to be my friends.
57. I have been able to learn interesting new skills recently.
58. People in my life care about me.
59. Most days I feel a sense of accomplishment from what I do.
60. People I interact with on a daily basis tend to take my feelings into consideration.
61. I feel like I can pretty much be myself in my daily situations.
62. People are generally pretty friendly towards me.

Physiological Philosophy Measures (Likert scale – Strongly Disagree to Strongly Agree; Coded 1 - 4)

63. Anxiety and depression are real disorders.

64. Anxiety and depression have physical symptoms that make it difficult for people to live their lives.
65. Anxiety and depression can be treated and diagnosed by medical professionals.
66. Anxiety and depression are triggered by biological and environmental factors.
67. Anxiety and depression should be treated to help a person feel happier.
68. Anxiety and depression are just a state of mind that people could change themselves if they wanted to.
69. People who think they have anxiety and depression imagine their symptoms.
70. People who think they have anxiety and depression do not need medical help.
71. People who think they have anxiety and depression can still feel unhappy even if they take medication for it or get psychotherapy.
72. People who think they have anxiety and depression can experience happiness without turning to medication or psychotherapy.

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VITA

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