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The Highly Sensitive Teacher:
Sensory-Processing Sensitivity, Burnout,
and Self-Efficacy in Urban Public School Teachers

A dissertation submitted in partial satisfaction
of the requirements for the degree Doctor of Education

by

Julie Stefan Lindsay

2017

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ABSTRACT OF THE DISSERTATION

The Highly Sensitive Teacher:
Sensory-Processing Sensitivity, Burnout,
and Self-Efficacy in Urban Public School Teachers

by

Julie Stefan Lindsay

Doctor of Education

University of California, Los Angeles, 2017

Professor Diane Durkin, Co-chair

Professor Mark Kevin Eagan, Co-chair

This sequential mixed methods study investigated Sensory-Processing Sensitivity (SPS) among urban teachers and the extent to which SPS correlated with their sense of self-efficacy, stress levels, and risk of burnout. Respondents to a survey (n=114) consisted of teachers from high needs schools in an urban district and included teachers from the elementary, middle, and high school levels. Teachers were screened for likelihood of presenting with SPS using the Highly Sensitive Person Scale (HSP; 1996), and responded to items pertaining to self-efficacy, stress, and burnout. The data was analyzed using frequencies, correlations, and linear and logistic regressions. From the survey sample population, teachers who scored in the highest 20% of

respondents for SPS were invited to participate in the qualitative phase of the study, which consisted of a journal and a one-on-one interview (n=7).

Analysis of the survey data revealed a statistically significant positive relationship between SPS and burnout that was mediated by stress and self-efficacy. Analysis also revealed a statistically significant positive correlation between SPS and the emotional exhaustion construct of burnout. In addition, analysis of the data revealed a positive correlation between SPS and stress but did not reveal a correlation between SPS and self-efficacy.

Analysis of the qualitative data revealed that teachers who are likely to present with SPS display characteristics of SPS, including depth of processing represented by reflection and deliberateness, strong empathy and emotional reactivity manifested as support for students, sensitivity to subtle stimuli by reading others' moods and body language, and susceptibility to over-stimulation that contributed to fatigue and agitation. Teachers' greatest sources of stress were competing time demands and challenges with colleagues. Additionally, teachers who scored high in SPS relied on routine or day-to-day coping strategies as well as more systematic, long-term coping strategies. Most notably, teachers who participated in the journals and interviews displayed a shift in cognitive appraisal when they learned about SPS and their results from the Highly Sensitive Person Scale (HSP, 1996).

These findings indicate that teachers who present with SPS may benefit from awareness of the trait and from a stronger understanding of its value in the classroom in order to develop appropriate coping strategies and increase self-efficacy, thereby decreasing stress and the risk of burnout and, subsequently, teacher attrition.

Key words: Sensory-processing sensitivity, highly sensitive, teachers, self-efficacy, stress, burnout, teacher attrition

The dissertation of Julie Stefan Lindsay is approved.

Robert Cooper

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University of California, Los Angeles

2017

DEDICATION

For my daughter:

O blest one hour like this! to rise
And see grief's shadows backward roll;
While bursts on accustomed eyes
The glad Aurora of the soul.

Dinah Craik, "An Aurora Borealis"

And for Jane, whose strength and bravery are immeasurable—
to make you proud would be an honor.

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CHAPTER ONE: BACKGROUND

Introduction

Teacher attrition rates are as high as 8%, which means that K-12 public schools lose 270,000 teachers per year (National Center for Education Statistics, 2014). This rate of turnover compromises the organizational climate of K-12 schools, negatively impacts student achievement, and costs school districts significant amounts of money (Barnes, Crowe, & Schaefer, 2007; Borman & Dowling, 2008; Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Guin, 2004; Johnson, 2006; Milanowski & Odden, 2007; Ronfeldt, Loeb, & Wyckoff, 2013; Simon & Johnson, 2013). While teachers choose to leave the profession for a variety of reasons, researchers have not investigated whether the trait of Sensory-Processing Sensitivity (SPS) may be associated with an increased likelihood of educators who possess this trait to pursue other career opportunities. This study investigated the extent to which teachers who possess characteristics of the SPS trait are at higher risk of burnout and professional stress and may need to develop strategic coping skills in order to sustain their commitment to the teaching profession.

SPS is a temperament trait in which a person exemplifies increased depth of processing, increased susceptibility to overstimulation, high emotional responsiveness or empathy, and sensitivity to subtleties as measured by the Highly Sensitive Person Scale (Aron, 1996; Aron, 2012; Aron & Aron, 1997). SPS is known by several other terms, including differential susceptibility (Belsky & Pluess, 2009; Ellis, Boyce, Belsky, Balermans-Kranenberg, & Van Ijzendoorn, 2011; Hartman & Belsky, 2015), vantage sensitivity (Pluess, 2015; Pluess & Belsky, 2013), and being a Highly Sensitive Person (Aron, 1996). Pluess (2015) argues that having a genetic predisposition to sensitivity is an evolutionary advantage for the population at large, but that both positive and negative aspects of the environment may disproportionately affect those

who are highly sensitive. Borman and Dowling (2008), in a meta-analysis of teacher attrition, write that “there are a large number of characteristics of the environments in which teachers work that predict attrition” (p. 398). Most classroom environments provide high levels of stimulation, including the physical movement and consistent needs of students, the multitude of information teachers must process in order to make decisions, and the varying demands required in order to provide academic, social, and emotional support for students. The classroom, as a highly stimulating place, seems apt to trigger the overstimulation tendency in teachers who have characteristics of SPS, making the trait worthy of study in the context of teacher attrition. In addition, existing support for teachers, including professional development, professional learning communities (PLCs), and many forms of coaching, do not address the particular needs of teachers with SPS because training for teachers does not provide assistance in developing the self-regulatory resources for coping and being resilient that Roeser et al. (2013) argue they need. The interaction between individual teachers with SPS and their sensory processing of the environment in which they work is worth examining, and this study used the lenses of cognitive appraisal and self-efficacy to explore this relationship. During the study, I analyzed sequentially collected quantitative data to screen teachers for their likelihood of presenting with the SPS trait and to learn more about their professional stressors, their sense of self-efficacy, and their risk of burnout. I then analyzed qualitative data to better understand how teachers with a high likelihood of having this trait interpreted their experiences in the classroom and developed and utilized coping strategies to manage and persist in the profession.

Problems with Teacher Attrition

Choosing teaching as a profession means choosing a career that serves the best interest of one’s students, parents, and community. Teachers report high levels of stress, as 25% of teachers

consider teaching a “very or extremely stressful job” (Kyriacou, 2001, p.28). Perhaps in part due to the stress of their job, roughly one in 12 teachers left the profession in 2012 (National Center for Education Statistics, 2014), while as many as one in five teachers leave high-poverty public schools (Ingersoll, 2004). By contrast, the attrition rate in Finland over the course of teachers’ careers is about 10%, or less than 1% per year (Center on International Education Benchmarking, 2015; Darling-Hammond & Rothman, 2011).

Teacher turnover negatively affects student outcomes. Ronfeldt et al. (2013) conducted the first longitudinal study of the impact of teacher turnover on student achievement. Among the 850,000 fourth- and fifth-grade students included in the study, students subjected to higher rates of teacher turnover scored lower in math and English Language Arts, particularly in lower-performing schools and schools with higher populations of minority students. Multiple studies have found that teachers with experience are, on average, more effective than brand-new teachers (Clotfelter, Ladd, & Vigdor, 2007a, 2007b; Harris & Sass, 2007). Guin (2004) studied a large urban district with 66 elementary schools to determine the effect of teacher turnover on six school climate concepts. Overall, districts with higher teacher turnover tended to score significantly lower on five of the six concepts: school climate, teacher climate, principal leadership, teacher influence, and feeling respected.

Beyond its dampening effect on student learning, teacher attrition also increases school districts’ expenses. The cost of recruiting, hiring, and training replacement teachers is significant. Barnes et al. (2007) found that the rate of teacher turnover for one school was 14.8% between the 2002-03 and 2003-04 school years, costing the school and district \$780,125, and that in the Chicago Public Schools district, 4,844 teachers left the district, costing approximately \$86,571,968. The Alliance for Excellent Education (2014) estimates that teacher attrition costs

the United States up to \$2.2 billion annually. Given the financial costs to districts and the detrimental effects on students, examining whether teachers presenting with the SPS trait have an increased risk of departing the profession and understanding the strategies and supports that could help prevent them from doing so are warranted.

The Need for Differentiated Support

Some school districts have attempted to address teacher attrition through initiatives like merit-based pay, mentoring, and PLCs. In 2010, Houston Independent School District's Board of Education launched the Effective Teachers Initiative (Houston Independent School District, 2011), a strategic plan to improve the recruitment, development, and retention of its teachers. In 2011, they approved a new teacher appraisal and development plan. One of the main features of the initiative was differentiated support designed around a teacher's individualized needs, mainly in the form of one-on-one coaching. Several years later, teacher applications to the district nearly doubled, allowing them to start the school year with 99.7% of teaching positions filled, and retention rates among highly effective teachers improved from approximately 83% to 88% (Houston Independent School District, 2013). The success of this program shows that support for teachers that more closely aligns with their personal needs may be an effective remedy for teacher attrition.

Typically, support for secondary teachers is based on factors like content area, grade level, number of years in the profession, or other demographic traits. At most, professional development might give teachers some choices about content, but multiple studies have found that professional development should be differentiated for teachers in order to maximize its effectiveness (Bubb & Earley, 2013; Chen & Herron, 2014). Taylor, Pearson, Peterson, and Rodriguez (2005) found that teachers are more effective when they have had opportunities to

engage in professional development tailored to their needs, and Grierson (2011) found that differentiated professional learning was important for fostering teacher growth. Identifying the professional needs of teachers with SPS provides an opportunity to further individualize appropriate supports for them, potentially increasing retention rates even more so than general coaching or professional development.

Implications of Having Sensory-Processing Sensitivity

While all teachers can benefit from coping skills and differentiated support, this study seeks to address the needs of teachers who possess a trait called Sensory-Processing Sensitivity (SPS), not to be confused with Sensory-Processing Disorder. Sensory-Processing Disorder is a condition in which a person's nervous system cannot organize the information it receives and results in inappropriate or mismatched responses (Sensory Processing Disorder Foundation, 2016). SPS, however, refers to the ways in which a person interprets his/her environment, impacting how a person processes stimuli in all its forms, including visual, auditory, and interpersonal. People with SPS display high levels of compassion and empathy, have heightened awareness of subtle changes in the environment and others' moods, are conscientious and prefer pausing before acting, and reflect and revise their "cognitive maps" after an experience (Aron, 1996; Aron & Aron, 1997; Acevedo et al., 2014). According to Aron (1996), approximately 20% of the population has SPS, which can be traced genetically (Licht, Mortensen, & Knudsen, 2011) and is thought to affect dopamine regulation in the brain (Chen et al., 2011).

SPS is categorized as a temperament trait, meaning that it presents as the behavioral style of a person resulting from a combination of genetic, biological, and environmental factors (Thomas & Chess, 1977). The trait is independent from both neuroticism and emotionality, though people with SPS can demonstrate characteristics of each (Aron & Aron, 1997), and it is

not a product of the person's culture (Aron et al., 2010). SPS can be measured by the Highly Sensitive Person Scale (HSP; Aron, 1996), which has been validated as an accurate measure of high sensitivity with internal consistency reliability for both high levels of sensitivity to subtle stimuli and being easily over-aroused (Aron & Aron, 1997, p. 364). Borries and Ostendorf (2012) found that SPS is indeed a category rather than a dimension, meaning “[those with SPS] form an independent group of people who seem to be qualitatively distinct from others concerning their way to perceive and process stimuli” (p. 1), so the HSP Scale has been useful in determining whether someone presents with the trait or not.

Research has shown that people who possess the trait appear to use areas of the brain associated with deeper processing, particularly when engaged in tasks that involve noticing subtleties (Jagiellowicz et al., 2011). People with higher SPS have also exhibited greater activation in areas of the brain related to interpersonal awareness and empathy than people with lower SPS when viewing either their partner's or strangers' faces (Acevedo et al., 2014). Additionally, individuals with SPS have demonstrated greater activity in the brain's mirror neurons, the action that allows us to feel empathy; individuals high in SPS were more affected by emotionally positive stimuli than those low in SPS (Jagiellowicz, 2012).

Having the SPS trait may be advantageous in certain situations, particularly in interactions such as those between teachers and students that require strong empathy skills and the responsibilities that require deliberation and caution. SPS, however, may also contribute to higher levels of stress and anxiety (Bakker and Moulding, 2012; Brindle, Moulding, Bakker, & Nedeljkovic, 2015) and, because they are prone to overstimulation, people with SPS seek to minimize sensory input (Evers, Rasche, & Schabracq, 2008). Therefore, teachers with SPS may be confronted with the competing characteristics of being attracted to the teaching profession

because of heightened compassion but an inherent difficulty with the typical school setting and the sensory demands of the profession, especially since one's interpretation of physiological arousal is a major factor affecting self-efficacy (Bandura, 1994; 1997).

The Study

This sequential explanatory mixed methods study first investigated the extent to which teachers who have characteristics associated with SPS differ from their colleagues who have fewer SPS characteristics. In the first phase, participants (n=114) responded to a survey indicating their likelihood of presenting with the SPS trait and overall risk for leaving the profession through indicators like stress and burnout. The second phase of the study further explored teachers' lived experiences through interviews and journals with teachers who were likely to present with SPS, most of whom had taught longer than five years. This project aimed to describe how teachers who may be highly sensitive interpreted professional stressors and cognitively appraised events at work to develop successful coping skills. This project also aimed to elucidate successful coping strategies from teachers who may be highly sensitive and have committed to the profession to help others who are highly sensitive sustain their teaching practice. The study sought to answer the following questions:

R1. To what extent are teachers who are identified as having a high likelihood of presenting with Sensory-Processing Sensitivity at a higher risk of stress and burnout compared to non-SPS teachers?

a. Are teachers who are identified as likely presenting with SPS at higher risk of burnout than their non-SPS peers?

R2. For teachers with a likelihood of presenting with SPS, particularly those who have persisted longer than five years, what factors do they attribute to their ability to persist?

R3. What behaviors and attitudes do teachers with a high likelihood of having SPS say they use to manage their workday?

Research Design

An explanatory sequential mixed methods design was employed to investigate the experiences of teachers who presented with SPS based on the Highly Sensitive Person Scale (Aron, 1996). Data was collected using a survey with Likert-scale questions to measure the trait of SPS among participants and to gather a baseline understanding of their levels of professional stress and risk of burnout. Responses from teachers whose survey responses suggested the presence of the SPS trait underwent a covariate analysis for other factors that correlate with their experiences, such as gender, grade level of the students they teach, and teacher preparation pathway. Linear and logistic regression analyses with intent to leave as the dependent variable tested whether teachers who presented with the SPS trait had a higher likelihood of intending to leave the profession, net of the previously mentioned covariates.

Following the survey, teachers presenting with characteristics of the SPS trait were invited to participate in individual journals and interviews. These individual interviews focused on participants' perceptions of their professional stressors, the coping strategies they use when encountering stress, and how they viewed their personality in relation to work. Studying the intersection of SPS, teacher attrition, and current sources of coping skills illuminated the ways teachers with SPS engaged in self-care. Additionally, this study aimed to illuminate how teachers might collaborate with their school leaders and colleagues to receive support that promotes self-efficacy, success, and retention in the classroom.

Study Population and Sample

The study population included 711 teachers from 18 schools currently working in a large urban district. These schools were chosen because they were identified as high-needs schools, a risk factor for teacher attrition (Ingersoll, 2004) and because of their accessibility to the researcher in terms of contacting teachers and conducting interviews. People with characteristics of SPS make up approximately 20% of the general population (Aron, 1996); therefore, given the broad set of schools represented by the above district, the survey yielded a sufficient number of teachers presenting with the SPS trait to be included in subsequent interviews for more in-depth analysis.

The survey identified those who were likely to present with SPS using the Highly Sensitive Person Scale (HSP; Aron, 1996; Aron, 2012; Aron & Aron, 1997), and included the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach, Jackson, & Schwab, 1996), a revised version of the Teacher Stress Inventory (TSI; Fimian, 1984; Richards, 2012), and several items from the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). These survey items created a picture of teachers' experiences in the classroom and provided the opportunity to examine differences in professional stressors, risk of burnout, and self-efficacy between teachers with and without SPS.

All surveyed teachers were asked at the end of the survey if they were willing to participate in the qualitative phase of the study. If so, they provided their name and contact information. From that group, I identified those who met the criteria of a high score in sensitivity, most of whom had been teaching longer than five years. Of the 13 potential participants contacted, seven volunteered to continue on to the second phase. The participant journals and interviews delved deeper into the lived experiences of teachers with characteristics

of SPS and provided insight into whether their experiences in the classroom differed from their peers who were less likely to present with characteristics of SPS.

Public Engagement

This study sought to understand and uncover best practices related to coping strategies and support for teachers with SPS. Using data analyses from the survey, interviews, and journaling, the study elicited findings that teachers with SPS themselves and school leaders can use to support this population. Recommendations include personal and professional strategies that help teachers with SPS to sustain their commitment to the profession in both routine, day-to-day ways and systematic ways. Recommendations are also relevant to school communities for developing awareness to provide the appropriate support and resources to this population with the intention of reducing teacher attrition. While the findings of this study are specific to teachers with SPS, school leaders and teachers in general can benefit from the results by using them to inform their own school-based relationships and priorities.

I plan to share the findings of this study through numerous venues, including local and national conferences (e.g., *California Council on Teacher Education*, *Learning Forward*) and networking with local districts and charter organizations around teacher support, professional development, and educational psychology. I will also pursue publication in relevant journals, such as *Teacher and Teacher Education* and *Journal of Educational Psychology*.

In the next chapter, I discuss the relevant literature on teacher attrition and SPS to show why this particular study is needed. In Chapter Three, I detail the research methodology, including ethical considerations and validity and reliability. Chapters Four and Five discuss the quantitative and qualitative findings, respectively, and Chapter Six explores the implications and recommendations based on the analysis of the data.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

Although teacher attrition rates have remained steady over the last decade, they are still high and disproportionately so among teachers in low-income schools (DiCarlo, 2015; Ingersoll, 2004). Interventions like pay increases and mentoring programs have been implemented to address this issue (Borman & Dowling, 2008; Clotfelter, Glennie, Ladd, & Vigdor, 2008; HISD, 2011; Smith & Ingersoll, 2004a), but none of these strategies addresses the specific needs of teachers as individuals; they do not provide a deep understanding of how teachers' personal characteristics or temperaments influence their everyday professional lives or their success as professionals. One such temperament trait that has a significant impact on a person is Sensory-Processing Sensitivity (SPS). People with SPS make up about 15-20% of the general population and process stimulation on a deeper biological level than people who do not present with SPS (Aron, 1996). This trait has certain features that, when understood and cultivated, may be of great benefit to the person's workplace community (Aron, 1996; Cooper, 2015a, 2015b; Jaeger, 2004). In a school setting, teachers with characteristics of SPS represent a unique population that is not yet understood. Research is needed to determine the extent to which characteristics of SPS impact teachers' classroom experiences and their commitment to persisting in the profession.

This chapter explores the role of SPS in the professional lives of teachers and whether teachers with SPS, whose temperaments could be considered an asset to schools, are more susceptible to stress, burnout, and decreased self-efficacy. I begin this chapter with a discussion of teacher attrition and how managing stress and burnout are significant factors in the retention of teachers, and then I review the research on the role of self-efficacy in sustaining teachers' commitment to the profession. I then describe the trait of Sensory-Processing Sensitivity (SPS), including its biological and evolutionary purpose, the impact of SPS on people in the workplace,

and its alignment with cognitive appraisal theory and effect on a person's perception filter. The last section discusses professional development for teachers and describes existing gaps that affect teachers' wellbeing and, ultimately, their decision to stay in the profession.

Teacher Attrition in America

Teacher attrition is a national problem with a significant impact on America's schools (Borman & Dowling, 2008). Teacher attrition rates have risen since the late 1980s and early 1990s, with 5.6% of the teaching population leaving the profession after the 1988-89 school year and 7.7% leaving after the 2012-13 school year (National Center for Education Statistics, 2014). These percentages include teachers who were involuntarily removed from their assignments; the rate of teachers being removed decreased from 9.7% after the 1988-89 school year to 5.3% after the 2012-13 school year. In 2013, in addition to the 259,400 teachers who left education or the classroom completely, another 271,900 teachers moved schools. This phenomenon has remained steady over the last decade, which means that teacher turnover is affecting over half a million classrooms every year (National Center for Education Statistics, 2014).

Teacher attrition rates are even higher among new teachers. Although researchers previously found that half of all new teachers left the profession within the first five years (Ingersoll, 2001), recent evidence contradicts this finding. A longitudinal study conducted by the U.S. Department of Education found that 17% of new teachers left by their fifth year, and while that number is less than the previously estimated 50%, it still represents 26,900 new teachers who have chosen to no longer teach (National Center for Education Statistics, 2015). Even higher still are attrition rates among teachers in low-poverty schools. In schools where more than three-quarters of students qualify for free and reduced lunch, the teacher turnover rate exceeds 22%, with 9.8% leaving and 12.2% moving schools (DiCarlo, 2015, citing National Center for

Education Statistics, 2015). School communities are left to manage these vacancies and deal with the ramifications of teacher turnover, including a decline in student achievement, a negative impact on organizational composition, and the depletion of financial resources (Barnes et al., 2007; Borman & Dowling, 2008; Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Guin, 2004; Johnson, 2006; Milanowski & Odden, 2007; Ronfeldt et al., 2013; Simon & Johnson, 2013).

The Impact of Teacher Attrition

Teacher attrition has far-reaching implications for schools and their students. Most notably, and arguably most importantly, teacher attrition negatively impacts student achievement. In most cases, less experienced teachers will replace the teachers who leave (Hanushek, Kain & Rivkin, 2004). Newer teachers are less effective than experienced teachers, and research has shown that teacher effectiveness is directly related to student achievement (Clotfelter et al., 2007a, 2007b; Harris & Sass, 2007; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004; Ronfeldt et al., 2013). In their longitudinal study of the impact of teacher attrition on student performance, Ronfeldt et al. (2013) found that teacher turnover negatively affected student achievement in math and English Language Arts (ELA), particularly in schools with high populations of low-performing and Black students. Additionally, among students of teachers who stayed, academic performance was worse in schools with high teacher turnover; Ronfeldt et al. (2013) suggest that “there may be a disruptive impact of turnover beyond compositional changes in teacher quality” (p. 31).

Boyd et al. (2008) found that less effective teachers, except for middle school ELA teachers, are more likely to leave teaching in their first two years than teachers who are more effective. The authors point out, though, that when these teachers stay with teaching but switch

schools, the original school of placement benefits from their departure. While these teachers often move to schools with similar academic performance and student populations, more effective teachers tend to move to schools that are higher performing, a trend that further disadvantages low-performing schools (Barnes et al., 2007). The schools with the highest need for consistency to sustain effectiveness are experiencing the highest rates of attrition. After researching the reasons why teachers leave schools with low-performing students, Simon and Johnson (2013) propose that teachers are not leaving because of the students but are actually leaving because of the poor working conditions. They describe these conditions as mainly social in nature, such as school leadership, collegial relationships, and elements of school culture (p. 4).

Ronfeldt et al. (2013) argue that replacing teachers with equally effective teachers can also impact student achievement because of the disruption to staff cohesion and community (p. 7). Schools facing high teacher turnover sacrifice stability among their faculty, greatly impacting the quality of collegial relationships and aspects of school culture like trust and collaboration. Simon and Johnson (2006) reason that “when schools lack the social capital that strong collegial relationships create, teachers may be reluctant to take on leadership roles or to form professional learning communities” (p. 7). This consequence impedes schools’ ability to implement and improve instructional programs. In a mixed methods study, Guin (2004) collected data using a staff school climate survey and completed 15 case studies from a school district with 47,000 students. Teacher turnover had a statistically significant negative correlation with five out of six school climate concepts: school climate, teacher climate, principal leadership, teacher influence, and feeling respected. Respondents in Guin’s study describe the impact of teacher turnover as disruptive; frustrating; a drain on their time, energy, and resources; and stifling of their growth as a school. Because of the need to train and acclimate replacement teachers, teacher efficiency and

effectiveness suffers (Guin, 2004; Johnson, 2006; Simon & Johnson, 2013). Because veteran teachers spend significant amounts of time helping to transition new teachers, repeating professional development so that all staff members acquire the same knowledge and understand the school's goals, thereby losing instructional momentum, Guin writes that teachers must re-start the planning and implementation process (p. 13). Schools with higher turnover are less likely to have trust and collaboration among staff to make this possible (Guin, 2004), which undermines effective teaching. It also undermines the culture of trusting relationships that Simon and Johnson (2013) argue is critical for a strong sense of community and for achieving a school's agreed-upon mission.

In addition to compromising a culture of trust, teacher attrition increases schools' costs. Milanowski and Odden (2007) identified multiple components that contributed to the cost of teacher attrition: separation costs (e.g., time to process documents, payment of accrued sick leave), cost of replacement staffing, net replacement pay, cost of training, and value of lost productivity. While the researchers recognize that net replacement pay can save districts money when an inexperienced teacher replaces an experienced teacher, they found that "losing teachers with about five years of experience is likely the most costly for a school district. At this level of experience, the compensation saved by replacement with a new teacher is outweighed by the lost teacher productivity" (p. 18). The first five years is when teachers are most at risk of leaving the profession (Ingersoll, 2001) and, combined with a yearly cost per vacancy that hovers around \$13,969 at the middle range, school leaders and districts may lose a substantial amount of money should teachers with five years of experience decide to leave. Milanowski and Odden (2007) recommend that efforts to retain teachers should be focused on those who have some experience but are not near the top of the pay schedule.

In their study of the financial cost of teacher attrition in five diverse districts, Barnes et al. (2007) found that the cost of teacher turnover ranges from \$4,366 per teacher per year in a small rural district in New Mexico to \$17,872 in the Chicago Public Schools district. The total cost of teacher attrition to Chicago Public Schools adds up to over \$86 million a year. Based on this pilot study, the National Commission on Teaching and America's Future (2007) estimated the cost of teacher attrition in additional cities and calculated the cost to Los Angeles at \$94.2 million annually. Nationally, they estimated the total costs of teacher attrition to both schools and district at \$7.34 billion. In California alone, the range of teacher attrition costs is estimated between \$89.9 and almost \$178.2 million (Alliance for Excellent Education, 2014). Teacher turnover forces high poverty schools to spend scarce resources that could otherwise be used to promote teacher and student growth, which is particularly noteworthy because these schools experience higher turnover rates than low poverty schools (Barnes et al., 2007, p. 5). In order to prevent teacher attrition, school leaders and districts must know why teachers are leaving so they can address those reasons and preempt teachers' departures.

Why Teachers Leave

The National Center for Education Statistics (NCES) conducts a report on teacher attrition and mobility based on responses from their Schools and Staffing Survey's Teacher Follow-Up Survey. The 2014 report that analyzed the data from the 2012-13 school year found that 60.8% of teachers who left the profession in 2013 indicated being better able to balance personal and work life in their new profession. In addition, 51% stated they had a more manageable workload in their current position than they did in teaching, and 53% stated that their overall working conditions were better in their current position than in teaching. Trends suggest that workload, or the amount of work that teachers are expected to do, is a common

source of teacher stress (Froeschle & Crews, 2010; Harris, 2011; Kyriacou, 2001; Murray-Harvey et al., 2000; Rieg, Paquette, & Chen, 2007; Roeser et al., 2013). Since teachers receive little to no training in managing work-related demands, they experience prolonged exposure to workload as a professional stressor in addition to other stressors, such as lack of time, large class sizes, inadequate resources, and poor relationships with colleagues. These challenges potentially lead to psychological and physiological symptoms that negatively impact their wellbeing and efficacy in the classroom (Brown & Nagel, 2004).

If periods of stress are frequent and intense, teachers may experience behavioral, physiological, or psychological responses that, over time, decrease their likelihood of staying in the profession (Wisniewski & Gargiulo, 1997). In a review of six recent studies on teacher turnover in high-poverty schools, Simon and Johnson (2013) propose that teachers leave because of the working conditions and school environment—school leadership, collegial relationships, and school culture—rather than because of a desire to work with a different population of students. In essence, the conditions and workload for many teachers tend to play a major factor in their decision to stay in or leave the profession.

“Burnout” has become the common term for teachers who leave the profession because of prolonged stress. Burnout occurs when teachers feel overwhelmed and hopeless enough about their job to leave the profession—the gap between what they want to accomplish and what they feel is possible to accomplish becomes too wide. Much of the literature cites Maslach and Jackson (1981) as the seminal research on occupational burnout. Maslach developed the Maslach Burnout Inventory in the 1980s to measure the concepts of emotional exhaustion (emotional depletion), depersonalization (detachment from those one works with), and personal accomplishment (negative self-assessment of performance) of an individual in relation to his or

her job. The extent to which stress and work-life balance impacts teachers' wellbeing is a common thread in discussions about teacher burnout (Flook et al., 2013; Frank, Reibel, Broderick, Cantrell, & Metz, 2013; Froeschle & Crews, 2010; Gold et al., 2010; Harris, 2011; Kaspereen, 2012; Rieg et al., 2007; Roeser et al., 2013), and burnout is recognized as a major cause of teacher attrition.

A number of researchers have noted broadly a relationship between burnout and various aspects of teacher performance: absenteeism, illness, student motivation, student achievement, and stability of the school environment. Each of these is influenced by a teacher's perceived self-efficacy, which supports teachers' beliefs in their ability to influence student outcomes and be successful at their jobs. Multiple studies have identified an inverse relationship between teachers' self-efficacy and burnout. Brouwers and Tomic (2000), through a questionnaire administered to over 600 secondary teachers, found that a decrease in perceived self-efficacy impacted teachers' depersonalization and sense of personal accomplishment, two of the three measures of the Maslach Burnout Inventory (MBI; 1996). Skaalvik and Skaalvik (2007) used a survey of 244 teachers to measure six aspects of teachers' perceived self-efficacy and found a strong negative relationship between self-efficacy and symptoms of burnout. Klassen and Chiu (2010) found that classroom stress, measured by a survey in which respondents rated the effects of student behavior on their stress levels, impacted teachers' self-efficacy in classroom management, student engagement, and instructional strategies. Teachers who experience high levels of stress "may not have the energy to develop novel/creative classroom approaches to learning/management" (Harris, 2011, p. 106).

Existing Interventions

One approach to reducing rates of teacher attrition is providing financial incentives to

teachers. Clotfelter et al. (2008) conducted a longitudinal study on the impact of a three-year teacher bonus program implemented in North Carolina from 2001-2004. The program provided an \$1,800 annual bonus to teachers in specific groups, and the goal of the program was to attract and retain highly qualified teachers in secondary schools that served low-income or low-performing students. They found that turnover rates for the targeted teachers participating in the program fell by 17%. However, the program was implemented for a short time and focused only on teachers in math, science, and Special Education, so the impact of financial incentives over a substantial period of time and across subject areas was not measured. Furthermore, the bonus constituted an average 4% increase in the teachers' salaries, an amount that is not feasible for most districts, especially those in high poverty areas. This approach, therefore, is not a viable solution for reducing teacher attrition and does not address the greatest reasons why teachers leave their schools as identified by Simon & Johnson, 2013.

Teacher attrition has also been addressed through the implementation of mentoring and induction programs; two key studies have analyzed the impact of such programs. Smith and Ingersoll (2004a) analyzed the 1999-2000 Schools and Staffing Survey to determine the effects of mentoring and induction programs on teacher turnover. Using descriptive data and a regression analysis while controlling for teacher and school factors, they found that mentoring and induction programs do decrease teacher attrition in a statistically significant way, but only when teachers received the components as a package (i.e., when teachers had a mentor who taught in the same field, had common planning time with teachers in their same subject, and were part of an external network of teachers). Having only one of these components did not have a significant impact on attrition.

In a follow-up study, Ingersoll and Smith (2004b) found that the effects of induction were moderated by school poverty level and that there was no effect for programs in high poverty schools, meaning induction programs only worked in more affluent schools. Additionally, their conclusion is that “induction is not a panacea and that, alone, may not be sufficient to reduce the high levels of teacher turnover that normally exist in many urban, low income, public schools” (Ingersoll & Strong, 2011, p. 41, citing Ingersoll & Smith, 2004b). While these interventions have had some impact on teacher turnover, the financial demands and the cost-benefit ratio are unclear and outcomes differ for high poverty schools.

The Role of Personality in Teacher Attrition

The literature on teacher attrition and its causes are abundant, mainly focused on teacher workload, working conditions, and stress and burnout. An important factor missing from these discussions is the role of the teacher’s personality or temperament and how these traits interact with these other constructs. Teacher stress and burnout are mediated by environmental factors, a teacher’s personality traits, and the relationship between the two (Brown & Nagel, 2004; Frank et al., 2013; Kaspereen, 2012; Roeser et al., 2013). In addition, the relationship between sources of teachers’ stress and reported stress levels is complex because of the interaction between demographic variables, the amount of time teachers are exposed to stressors, and the organizational factors present as well as how the teachers’ perceptions, skills, and values influence their reaction to these multiple stressors (Brown & Nagel, 2004).

In other professions, personality has been linked to burnout and attrition. In a study of healthcare personnel, Gustafsson et al. (2009) compared the personality traits of workers at the same employment site who were burned out to those who were not. The researchers found that the non-burnout group had lower scores in traits like sensitivity and vigilance and higher scores

in traits like emotional stability and “hardiness” (p. 340). Similarly, in a meta-analysis of 121 studies, Alarcon, Eschleman, and Bowling (2009) found that multiple measures of personality had strong relationships with burnout. The strongest relationships were between the personality traits of emotional stability, positive affectivity, and negative affectivity and the constructs of burnout of emotional exhaustion and depersonalization. Additionally, self-efficacy and positive affectivity had strong positive relationships with personal accomplishment. The authors concluded that even though working conditions contribute to burnout, burnout is also associated with employees’ personalities, meaning some individuals may still experience high levels of burnout as a result of their personalities even after aspects of the work environment are addressed.

Lambert, McCarthy, Gilbert, Sebree, and Steinley-Bumgarner (2006) conducted research using a stress inventory and included a measure of personality constructs based on the Five Factor Model (McCrae & Costa, 1986), a theory that assesses personality as degrees of openness, agreeableness, extraversion, conscientiousness, and neuroticism. They found that personal characteristics are closely related to career stress and that understanding one’s own identity has value in preventing stress (p. 80). These studies indicate that personality is potentially an important factor affecting teacher attrition, yet much of the literature on teacher attrition and “personality” actually address teacher demographics or environmental factors rather than the inherent features of a teacher’s personality (for example, Belu, Beteille, & Loeb, 2009-2010; Brown & Nagel, 2004; Hughes, 2012; Ingersoll, Merrill, & Stuckey, 2014; Klassen & Chiu, 2010; Murray-Harvey et al., 2000).

The issue of teacher attrition is significant if the profession loses over 270,000 teachers annually (National Center for Education Statistics, 2014). Hiring, orienting, and retaining such a

large number of new teachers every year puts strain on both human capital and financial resources. Teacher turnover limits student access to master teachers and stifles teacher growth by forcing departments to continuously start over, particularly in high poverty, urban schools. Continuity and stability in school communities, such as building the school culture, developing relationships with stakeholders, and teacher and institutional expertise, suffer when teacher turnover is high. Research that investigates the role of teachers' temperaments in stress, burnout, and attrition should be conducted, a gap this study seeks to fill. One important component to the discussion of teacher temperament that research has overlooked is Sensory-Processing Sensitivity (SPS).

Sensory-Processing Sensitivity

Approximately 20% of the general population possesses a temperament trait called Sensory-Processing Sensitivity (SPS), which describes four main personality features that characterize a person with SPS: increased depth of processing, susceptibility to overstimulation, high levels of empathy and emotional reactivity, and sensitivity to subtle stimuli (Aron, 1996; Aron, 2012; Aron & Aron, 1997). SPS is also known as being a Highly Sensitive Person (HSP), and these terms will be used interchangeably throughout this study. Additional marked characteristics are creativity, conscientiousness, responsive to others' needs, preferring to pause before acting, and a propensity to be upset by failures and mistakes, unethical behavior, or stressful conditions in general. SPS is a temperament trait, meaning it is the behavioral style of a person and results from a combination of genetic, biological, and environmental factors (Thomas & Chess, 1977). What an HSP finds overwhelming is viewed as normal to non-HSPs (Aron, 1996). Presenting with SPS affects a person's everyday interactions and has a significant effect on how they experience and interpret the world around them.

The Biology of Sensory-Processing Sensitivity

SPS should not be confused with Sensory-Processing Disorder, a condition in which a person's nervous system cannot organize the information it receives and results in inappropriate or mismatched responses (Sensory Processing Disorder Foundation, 2016). Rather, Borries and Ostendorf (2012), using a multi-analysis method with almost 900 subjects, found that SPS is indeed a categorical variable among 15-20% of adults that affects the way they process sensory information, meaning people can be grouped into either the category of "highly sensitive" or "not highly sensitive." Although these results have not been formally published, they concluded that "HSPs do exist; they form an independent group of people who seem to be qualitatively distinct from others concerning [the way they] perceive and process stimuli" (p. 1). Chen et al. (2011) sought to determine whether SPS resulted from a genetic factor. Using polymorphisms to investigate, they tested genes to see whether two groups within the same species were genetically different. They conducted a genotype study in the dopamine transmitter genes of 98 polymorphisms representative of SPS. Controlling for stressful life events and parental warmth, the researchers found seven genes related to SPS and that the dopamine system in the brain accounted for about 15% of the genetic variability found in the SPS trait. Other studies have also found that SPS is genetic. Licht et al. (2011) found that high levels of SPS are associated with a specific serotonin genotype, which is "all or part of the genetic constitution of an individual or group" (Merriam-Webster Medline Plus, 2016, para. 1); thus, characteristics of SPS are part of a person's genetic makeup.

Sensory-Processing Sensitivity manifests biologically as the brain processes stimuli (Acevedo et al., 2014; Jagiellowicz, 2012; Jagiellowicz et al., 2011) and may have an evolutionary purpose (Aron and Aron, 1997; Aron, Aron, & Jagiellowicz, 2012; Pluess, 2015;

Wolf, Doorn, and Weissing, 2008). The trait of sensitivity, also described as sensitivity to context, emotional reactivity, or differential susceptibility, is found in other species, such as pumpkinseed sunfish and primates (Coleman & Wilson, 1998; Suomi, 2006; Wolf et al., 2008). Evidence that SPS is a biologically based trait in humans is the result of studies using functional magnetic resonance imaging (fMRI). Acevedo et al. (2014) found that highly sensitive individuals, identified with the Highly Sensitive Person Scale (Aron, 1996), showed greater activity in the areas of the brain that involved in self-other processing, decision-making, integration of sensory information, and action planning. They also found more activity in the brain's mirror neurons, the biological action that allows people to feel empathy. They concluded that the brain "mediates the experiences of highly sensitive individuals as being more responsive to others' moods" (p. 12) and that these findings are evidence that "awareness and responsiveness are fundamental features of SPS" (p. 1).

Likewise, Jagiellowicz et al. (2011) used fMRI scans to test subjects while engaging in a change detection task. When subjects viewed subtle changes in a scene as opposed to major changes, researchers found a relationship between SPS and both increased response time and greater activity in visual areas and visual-motor coordination areas of the brain. The researchers determined that those high in SPS attended to details in the scene more closely and that this activity is related to a greater degree of networking among the neurological processes that underlie visual processing (p. 46), providing evidence that SPS occurs at a basic neurological level.

In a third fMRI study, Jagiellowicz (2012) viewed activity in the brain as participants viewed positive, negative, and neutral pictures. Results showed that individuals high in SPS are more affected by positive stimuli, particularly after controlling for neuroticism and introversion,

and that they had reactions that were both stronger and faster than those low in SPS. These results indicate that SPS may be characterized by emotionality in response to positive stimuli more than emotionality in response to negative stimuli (Jagiellowicz, 2012, p. 45). This means that in the context of school settings, teachers who possess characteristics of SPS may respond well to positive interactions like school leader support, constructive collegial relationships, and strong student relationships, and that these positive interactions may leave a greater, more lasting imprint on their experience than negative ones.

Although studies have concluded that SPS is a construct distinct from neuroticism and introversion (Aron and Aron, 1997; Jagiellowicz, 2012), SPS does correlate moderately with negative affectivity/neuroticism (Aron & Aron, 1997; Aron, Aron, & Davies, 2005). People who have the SPS trait may be more likely to have traits like fearfulness, anxiety, or depression, but are not “neurotic” or “constantly anxious for no apparent reason” (Aron, 1996, p. 12), nor are they shy. That these characteristics are often interpreted this way show how people with traits of SPS may be misunderstood or marginalized (Aron, 1996).

Sensory-Processing Sensitivity in the Workplace

People who are highly sensitive may experience the workplace in ways that are different from those who are not highly sensitive (Aron, 1996; Cooper, 2014; Cooper, 2015; Jaeger, 2005). People with SPS are more deliberate and diplomatic in their actions and are highly conscientious about their work (Aron, 1996; Cooper, 2015). Moreover, people with SPS recognize minute details and ruminate on events and conversations because they recognize subtle details in their environment (Aron, 1996). Multiple studies have found that people with SPS are at higher risk of experiencing and are more affected by stress (Bakker and Moulding, 2012; Brindle et al., 2015; Evers et al., 2008; Gerstenberg, 2012), and burnout and workplace stress is a

serious concern for HSPs (Jaeger, 2005, p. 84). Bakker and Moulding (2012) conducted a quantitative study analyzing the relationship between SPS and negative affect using a self-report measure of depression, anxiety, and stress and analyzed whether that relationship was moderated by emotion regulation. Emotion regulation is the process of identifying, processing, and managing one's emotions (Austin, Saklofske, & Egan, 2005 as cited in Vesely, Saklofske, & Nordstokke, 2014), and it can help a person manage high-stress situations. They concluded that when a person with SPS is repeatedly exposed to antagonistic sensory stimuli, their emotion regulation is diminished, which can then lead to negative affect or depression.

Multiple studies have found that frequent over-arousal—to which people with SPS are prone—leads to lower self-efficacy and higher alienation, affecting work performance (Sobecko & Zelenski, 2015, citing Aron & Aron, 1997; Evers et al., 2008). Evers et al. (2008) analyzed the relationships between SPS and four facets of work stress: workload, emotional load, work displeasure, and need for recovery. The four facets of work stress were measured using summated scales from an established survey instrument assessing work-related stress, and while they did not find a correlation between SPS and workload or emotional load, they did find a strong positive correlation between SPS and work displeasure and need for recovery. The authors point out that workload and emotional load represent the first stage of the stress response and that displeasure and need for recovery represent the second stage of stress, meaning high sensory processing can be a marker for burnout (p. 197). For these reasons, long-term stress combined with the impact of characteristics associated with SPS may compound each other. Teachers with SPS may be highly invested in the quality of students' experiences, certainly an advantageous quality, but may do so at the cost of their own wellbeing, a disadvantage to both the teacher and the students. This potentially puts this population at a higher risk for burnout.

People with SPS display specific behaviors in the way they interact with other people in the workplace. Schools in particular provide large amounts of stimulation. Jaeger (2005) writes that people with SPS are more affected by people than anything else, a detail that has strong implications for teachers who interact with dozens, and sometimes hundreds, of people every day. People with SPS are often highly reflective and keenly aware of themselves and others (Cooper, 2014, p. 80), including others' negative energy (Cooper, 2015). Since susceptibility to overstimulation is a key characteristic in people with SPS, they seek to minimize sensory input (Evers et al., 2008) and opportunities to regroup and recover at work are essential (Aron, 1996; Jaeger, 2005). Jaeger (2005) recommends that people with SPS establish good interpersonal boundaries to protect themselves in tangible ways, such as shutting the door to an office, and intangible ways, such as recognizing potential stressors early. This task can be difficult for teachers who have characteristics of SPS because they have higher levels of empathy and emotional reactivity (Acevedo et al., 2014; Aron, 1996; Jagiellowicz, 2012) and may want to help even when their reserves are low. Additionally, several researchers suggest that people with SPS need to make a significant effort to communicate on one's behalf (Jaeger, 2005, p. 124), but Cooper (2014) found that people with SPS try to cover up their sensitivity and may not ask for what they need because of society's pressure to display the appropriate "stronger" affect. Consequently, these expectations could potentially require teachers with SPS to minimize or hide a very valuable trait in the classroom.

SPS and Professional Development

The literature focusing on professional development is abundant. We know that professional development benefits teachers when it addresses their specific needs, is strategic and cohesive, and is combined with follow-up coaching and feedback (Gage, 2012;

Gulamhussein, 2013; Hunzicker, 2010). Existing strategies for professional development include mentoring and coaching, courses and workshops, and collaboration in the form of professional learning communities (PLCs) or peer observations (Gulamhussein, 2013; OECD, 2009). Taylor, Pearson, Peterson, and Rodriguez (2005) found that teachers are more effective when they have opportunities to engage in professional development tailored to their needs, and Grierson (2011) found that differentiated professional learning was important for fostering teacher growth. In a qualitative study tracking the implementation of a professional development initiative focused on reading, Grierson (2011) found that “differentiating the process used to support growth during coaching was essential to meeting these teachers’ unique needs” (p. 16). The results of this study emphasized instructional and student academic outcomes; further individualization based on teachers’ intrapersonal needs could potentially make professional development even more effective.

In another study, Tschannen-Moran and McMaster (2009) examined the interaction between professional development, self-efficacy, and implementation of a new teaching strategy. Of the four treatments teachers received, the treatment that included individualized coaching resulted in both increased self-efficacy and instructional implementation. Part of their discussion includes the question of which coaching components are the most effective for raising self-efficacy and implementation since it was not included in this particular study (p. 244). A possible answer to the question is the role of teachers’ temperament and, consequently, teacher-coach compatibility.

Despite these examples of effective initiatives, professional development remains wholly unsatisfactory and largely ineffective for many teachers (Archibald, Coggshall, Croft, & Goe, 2011; Gates Foundation, 2014; Gulamhussein, 2013). A novel approach that has not yet been

studied is differentiated professional development based on teachers' specific needs that may not be related to instructional strategies or content knowledge or classroom management. Teachers' personal temperaments may have a strong influence on their reception and implementation of professional development, especially one such as SPS that impacts how they experience and perceive the sensory information they receive while in the classroom. Taking this into account may make professional development more effective and satisfactory, leading to improved outcomes for teachers.

Theoretical Framework

This study is guided by two theories: teacher self-efficacy and cognitive appraisal theory. Self-efficacy consists of the "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (Bandura, 1997). Cognitive appraisal theory suggests that our emotions are the result of our interpretation of an event. The emotions result from the interaction between a person and their environment, the interpretation of the event in relation to one's goals, and the interpretation of the event in relation to its relevancy to one's life.

Teacher Self-Efficacy

The concept of self-efficacy stems from Bandura's social cognitive theory, which proposes that cognitive and behavioral aspects of a person interacts with the environment in a reciprocal process. Goddard, Hoy, and Hoy (2000) describe social cognitive theory as addressing human agency, or the ways that people exercise some level of control over their own lives. Efficacy is how one conceptualizes and operationalizes this agency and is a function of capability (I can) rather than intention (I will), influencing the way a person thinks, feels, and acts (Bandura, 1994; Bandura, 1997). Teacher self-efficacy, then, is a teacher's belief or expectation that he or she can impact student learning, and is the interplay between skills and

situation: what does the teacher believe he or she can do in a variety of circumstances and how does he or she act because of that belief?

Bandura (1994) describes how self-efficacy is the perception of competence rather than actual performance, a distinction that greatly impacts an individual's course of action. Self-efficacy is generated through the integration of one's capability, the task demands within an activity domain, and the situational circumstances surrounding the endeavor. Tschannen-Moran and Woolfolk Hoy (2007) write that because self-efficacy so greatly impacts an individual's actions, it can be a self-fulfilling prophecy, proving one's expected capability or incapability. Individuals who possess a strong sense of self-efficacy are able to organize their skills to serve multiple purposes and act in ways that provide a strong success orientation (Bandura, 1997). They face challenges rather than avoid them, set challenging goals for themselves, sustain a strong commitment to those goals, and recover quickly from setbacks (Bandura, 1994). These outcomes increase perseverance and performance and decrease stress and risk of depression (Bandura, 1994; Bandura, 1997). Tschannen-Moran and Woolfolk Hoy (2001) identified three dimensions of teachers' sense of self-efficacy: instructional strategies, student engagement, and classroom management, captured in the Teachers' Sense of Efficacy Scale (TSES, 2001).

Bandura (1994; 1997) identifies four major sources that influence self-efficacy, one of which is physiological arousal. He writes that when people judge their capabilities, their somatic and emotional states play a role. Therefore, being in a state of stress or fatigue or being in an optimistic or discouraged mood can affect a person's sense of self-efficacy. What's most important is not the amount or severity of these states but the person's interpretation of them—he or she can view them as motivating or debilitating. For teachers, self-efficacy has been correlated with burnout, emotional exhaustion, and depersonalization, demonstrating that self-efficacy

beliefs are heavily based on experiences and on “physiological and affective states” (Brown, 2012). In this regard, teachers can build their self-efficacy by reducing stress and changing a negatively tinted paradigm.

Cognitive appraisal theory.

Cognitive appraisal theory serves to explain the resulting emotion or emotions a person feels in response to their environment, which is largely dependent on how they interpret the event. This perspective helps explain why people may have different, possibly even contrary, emotions in reaction to the same stimulus or experience. According to Lazarus (1991), people engage in two stages of appraisal: primary, which is how the situation affects their wellbeing, and secondary, which is how they might cope with the situation. Additionally, cognitive appraisal has a relational aspect, meaning that emotions always involve the interaction between a person and their environment. SPS, then, is a physiological factor that impacts how a person interprets their environment—the way their brain processes the stimulus or event is both unique and significant.

Linking Self-Efficacy and Cognitive Appraisal

Although SPS is a temperament trait, Bandura (1997) makes an important distinction between self-efficacy and trait theory that is central to this study. He argues that while perceived self-efficacy is durable, it does not require stability over time like a personality trait does and does not result in constructing an individual’s characteristics. Trait theory does not account for the environment or situation, crucial factors for the lived experience of someone with SPS, and does not account for changes in personality. High self-efficacy is structured in part by reflective thought, which is an inherent skill in people with SPS (Aron, 1996). This study seeks to show how teachers can reinterpret and honor their sensitivity to address these types of changes. This

perspective on SPS as a trait would be most helpful to teachers who present with the trait and the school leaders who seek to support them; it is not the trait itself that matters but how the teacher engages in cognitive appraisal to interpret their environment in constructive ways and utilize their sensitivity for success in the classroom.

Conclusion

Aron (1996) proposes that American culture does not value sensitivity in ways other cultures do, preferring a more aggressive and straightforward approach, and that this position makes it hard for people with SPS to find a career where they are valued and respected. But under the right conditions, sensitivity is an advantage (Belsky & Pluess, 2009), such as when caution, deliberation, or empathy are of great benefit to the situation. Understanding SPS and the role it plays in a person's professional life is an opportunity for teachers and school leaders to increase awareness and change their frame around teacher self-efficacy, coping skills, and support. SPS has never been studied in teachers as a population, nor has a link been established between teachers who have characteristics of SPS and a higher risk of burnout. My study sought to not only understand how people who demonstrate traits of SPS can navigate their work life but also sought to uncover how teachers can build their self-efficacy, coping skills, and appreciation of the valuable characteristics they bring to the classroom.

I have described the impact of teacher attrition on schools and the reasons why teachers are leaving the profession. I have also discussed what SPS is, how it affects a person both personally and in the workplace, and its potential role in teacher burnout. By increasing self-awareness among teachers about SPS and how it affects their classroom experiences is an opportunity to shift their cognitive appraisal and increase their self-efficacy, subsequently helping them be more successful as teachers and retaining them in the profession. As Ellis et al.

(2011) write, high sensitivity should be a foundation for shaping programs and interventions that benefit those who have it, and the “discovery of neurobiologically susceptible individuals renders possible a perspective in which making social environments safe and supportive for even the most sensitive people makes the world better for all people” (p. 23). Sensitivity is a trait we should seek out in our teachers because of the benefit they bring to their students and school communities.

CHAPTER THREE: METHODOLOGY

Introduction

The previous chapters explained how a teacher's high correlation with the traits of Sensory-Processing Sensitivity (SPS) might impact them in the classroom and affect their self-efficacy and cognitive appraisal. This project sought to understand how professional stressors affect this population and whether they are at higher risk of burnout. This study also sought to learn about how this population sustains their commitment to the profession in order to increase teacher retention rates.

Teacher attrition, whether because teachers leave their schools or leave the profession entirely, creates gaps for students and leaves schools with academic, financial, and cultural burdens (Barnes et al., 2007; Borman & Dowling, 2008; Boyd et al., 2008; Guin, 2004; Johnson, 2006; Milanowski & Odden, 2007; Ronfeldt et al., 2013). Currently, teacher attrition creates over 500,000 school vacancies every year when accounting for teachers who move to other schools and teachers who leave the profession entirely (National Center for Education Statistics, 2015), and the highest attrition rates are in high-poverty schools (Ingersoll, 2004; DiCarlo, 2015). This study investigated the impact of Sensory-Processing Sensitivity (SPS) on teachers by exploring the relationship between SPS, burnout, stress, and self-efficacy and by exploring how teachers with this trait have managed stress and developed professional coping strategies. The ultimate goal of this study is to prevent teacher attrition by recognizing and uncovering the specific strategies of teachers who have SPS. People presenting with the SPS trait feel intense empathy for others, are deliberate and conscientious, and are sensitive to subtle stimuli (Aron, 1996). These traits are very valuable in the context of a classroom but may make many aspects of being a teacher overwhelming and, potentially, unsustainable. This study sought to better understand the inner workings of teachers who showed traits associated with SPS in order to illuminate their

everyday experiences and the impact of SPS on their cognitive appraisal and self-efficacy. The following questions guided the study:

R1. To what extent are teachers who are identified as having a high likelihood of presenting with Sensory-Processing Sensitivity at a higher risk of stress and burnout compared to non-SPS teachers?

a. Are teachers who are identified as likely presenting with SPS at higher risk of burnout than their non-SPS peers?

R2. For teachers with a likelihood of presenting with SPS, particularly those who have persisted longer than five years, what factors do they attribute to their ability to persist?

R3. What behaviors and attitudes do teachers with a high likelihood of having SPS say they use to manage their workday?

Research Design

This project was an explanatory sequential mixed methods study. The purpose of mixed methods was to gain the benefits of both types of data while minimizing the limitations of each (Creswell, 2014), and the purpose of conducting the mixed methods in an explanatory sequence was to collect an initial round of data that would then inform the second round of data collection. This allowed me to gain a deeper understanding of all the data collected and make comparisons; the quantitative part of the study allowed for generalization to a population and the qualitative part “[sought] to establish the meaning of a phenomenon from the views of the participants” (Creswell, 2014, p. 18). In this study, a survey gathered demographic data as well as data pertaining to SPS, risk of burnout, stress, and self-efficacy. From these data, a subgroup of respondents who demonstrated characteristics associated with SPS, most of who had been teaching longer than five years, were identified as potential participants in the qualitative data

collection. Through interviews and participant journals, they provided deeper insight into their experiences and how they sustained their commitment to the profession.

Conducting the survey first allowed me to analyze trends in burnout and stress levels among the sample population (n=114) and then to identify teachers who had scores indicative of the SPS trait. I invited the survey respondents who had the highest 20% of scores and had volunteered their name to participate in the qualitative phase of the study, which included answering a journal prompt and engaging in an in-depth interview so I could elucidate the challenges they faced and the strategies that have sustained them. These methods offered the opportunity to discuss the coping strategies and needs of teachers who showed characteristics associated with SPS. Participants (n=7) completed the journal prompt first and then engaged in the one-on-one interview. At the conclusion of the interview, I gave participants information about SPS and asked them to reflect on the extent to which the trait felt like an accurate description of their personality.

The purpose of this explanatory sequential mixed methods study was to capture the experiences of teachers who possessed traits associated with SPS. The quantitative data initially provided insight into trends such as the distribution of SPS scores among the sample population, the risk of burnout among teachers who scored high on the SPS scale compared to teachers who scored low on the SPS scale, the stress levels among the teachers in the population, and the impact of self-efficacy on these constructs. This phase aimed to provide greater insight into teachers presenting with characteristics of the SPS trait and whether having this trait was associated with higher risk of burnout. The second phase captured the unique narratives of teachers who presented with characteristics of SPS, surfacing their experiences in their own words and detailing how they perceived their work environment, how they approached

challenges or setbacks, and the intrapersonal and interpersonal supports that helped them most. The two phases of this research worked together to create a complete picture of the coping strategies and cognitive appraisal of teachers who were likely to present with SPS.

Methodology

Rationale for Selecting the Specific Site

This study included teachers from 18 schools located in a large urban area in Los Angeles. These sites were chosen because they represented all grade levels and because I had connections with these schools that provided adequate access to recruit participants. These schools were also high needs schools; the percentage of students qualifying for free and reduced lunch ranged from 68% to 98%. Targeting a dispersed population also allowed me to control for type of school (elementary, middle, or high) as a factor of burnout. A high number of teachers were needed in the pool to identify a sufficient number of teachers whose SPS scale scores suggested the presence of the SPS trait and included a number of teachers who had been teaching for at least five years. Additionally, a robust sample size was necessary for the inferential statistical analyses that examined the correlation between presenting with the SPS trait and burnout, controlling for several covariates. Drawing from a large, diverse pool of teachers strengthened the generalizability of the findings to other diverse school districts.

Selection and Recruitment of Participants

The population sample for the quantitative study included teachers from 18 schools—nine elementary schools, five middle schools, and five high schools. I contacted principals to ask for permission to email the survey to teachers toward the end of November of 2016. All teachers from the schools were eligible to take the survey. In total, 711 teachers were contacted and given the link to the survey, which was administered through Survey Monkey. When possible, I visited

schools during a professional development session or faculty meeting and made an in-person invitation for teachers to take the survey. After I sent an initial email, I sent two reminder emails spaced at least a week apart. The response rate was 16%, yielding 114 complete survey responses. I divided the sample population into the highest 20% of SPS scores (n=25) and the lowest 80% of scores (n=89), since about 20% of the general population is likely to possess characteristics associated with SPS (Aron, 1996). To increase response rates, I incentivized participants by entering their name in a drawing for an Amazon gift card.

Among the group with the highest 20% of SPS scores and who volunteered their name and contact information, indicating that they were willing to participate in interviews and journaling, I reached out and invited them to participate in the qualitative phase. I noted in particular those teachers who had been teaching longer than five years because they had made it past the “risk zone” for attrition ((National Center for Education Statistics, 2015). I sent an initial email and then sent two reminder emails spaced a week apart. Of the 13 teachers contacted, seven respondents replied affirmatively to the invitation. I sent each participant a journal prompt asking them to share their initial thoughts about how they respond to and process demanding events at work. Since the characteristics of SPS means that a person processes information more thoroughly but not necessarily consciously (Aron & Aron, 2013), journaling allowed the participants to slow down and explicate their thinking, or processing, more explicitly, particularly in terms of reflecting on their work life. Their experiences were further captured through a subsequent semi-structured interview that focused in more detail on their professional stressors, their coping strategies, and the role of their personality in their work as a teacher. At the end of the interview, I gave participants information about SPS and asked them to reflect on the ways the description did or did not apply to them.

Quantitative Data Collection

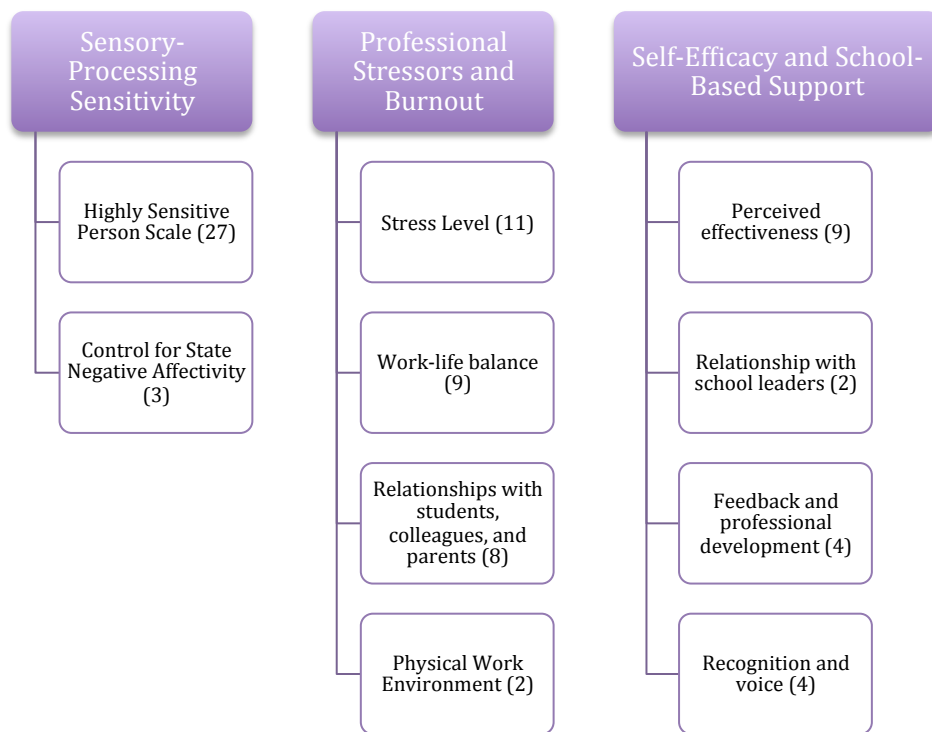
The survey instrument, distributed to whole faculties at each of the 18 school sites, collected demographic information and assessed the constructs of SPS, burnout, stress, and self-efficacy. The survey uncovered patterns between teachers who did and did not demonstrate high correlation with SPS with cross-sections of demographic variables like number of years in the profession, source of their teacher training, and the grade level they taught. The survey was a fixed-response instrument that was anonymous for those who chose to remain so and confidential for those who volunteered for the second phase of data collection.

The survey consisted of 79 items drawn from four existing instruments: the Highly Sensitive Person Scale (HSP; 1996), the Maslach Burnout Inventory-Educators Survey (MBI-ES; 1986), the Teacher Stress Inventory (TSI; 1984), and the Teachers' Sense of Efficacy Scale (TSES; 2001). Figure 3.1 breaks down these constructs further and shows the question frequency for each. Internal validity of the resulting survey was evaluated, which is discussed in more detail in Chapter Four. Other than demographic questions, all items in the survey were in Likert scale format.

The Highly Sensitive Person Scale (HSP; 1996) measured the extent to which respondents had characteristics of the SPS trait, information that could not be obtained qualitatively. The Highly Sensitive Person Scale is a 27-item questionnaire that assesses the likelihood that a person has SPS. Aron and Aron (1997) conducted a series of studies to develop the instrument as a way to measure high sensitivity and found that the scale “appears to have levels of reliability and content, convergent, and discriminant validity adequate for use in future research” (Aron & Aron, 1997, p. 361). This scale is currently the only scale available in the body of research to measure potential SPS in humans. While using the scale in research, Aron

and Aron (2013) recommend adding three additional items that help control for state negative affectivity, broadly understood as neuroticism or anxiety, which brought the total number of questions pertaining to SPS on the survey to 30. The self-reporting instrument used a seven-point Likert scale format with no reverse items. Participants were self-reporting the extent to which they reacted to or were bothered by certain stimuli to determine their level of sensitivity (Aron, 2013). The likelihood of SPS is determined by a natural break of the sample population into high or low (Aron, 2013; Borries & Ostendorf, 2012; Hofmann & Bitran, 2007), though this break did not occur among the sample population in this study.

Figure 3.1. Survey Instrument Constructs and Question Frequency



The Maslach Burnout Inventory-Educators Survey (Maslach et al., 1996) is a validated instrument used to measure three aspects of job-related burnout: emotional exhaustion, depersonalization, and personal accomplishment. The Educators-Survey version of the

instrument uses questions that specifically address the role of educators, including multiple items related to student relationships and the self-efficacy respondents feel they have as an educator. Together, these scales assess the level of burnout an educator currently feels. The survey has 22 items in a six-point Likert scale format. Permission to use the survey was obtained through Mind Garden, Inc.

To determine teachers' risk of burnout, I first looked at each subscale of burnout as a single measurement, meaning emotional exhaustion, depersonalization, and personal accomplishment each had an individual total score. I then looked at the distribution of each subscale to determine the cut point of 50% of respondents, meaning the 50% of the sample population with the highest scores were considered at risk of burnout for that construct. This meant that a score of 20 or higher indicated risk of emotional exhaustion, a score of 4 or higher indicated risk of depersonalization, and a score of 39 or less indicated a decreased sense of personal accomplishment. Because personal accomplishment is a positive outcome, meaning a high score indicates less likelihood of burnout, a low score is an indicator of risk. I considered any respondents who scored at risk in two of the three subscales to be at overall risk of burnout.

The Teacher Stress Inventory (Fimian, 1984) assesses teachers' occupational stress in varying categories, including time management, professional distress, and discipline and motivation. The instrument has 49 items in a five-point Likert scale format. Richards (2012) modified the instrument, making it shorter and creating a stronger focus on coping behaviors. Because of the length of the instrument and because several categories focus on how the respondent reacts to stress rather than the extent to which they feel job-related stress, I selected items from the Teacher Stress Inventory (1984) and the modified Teacher Stress Inventory (Richards, 2012) that best align with items from the Highly Sensitive Person Scale (Aron, 1996).

By doing this, I targeted the aspects of being a teacher that would most affect someone with high sensitivity, allowing me to further disaggregate teachers with high and low correlations with SPS characteristics. I obtained permission to use this scale by contacting Dr. Fimian directly.

The fourth scale utilized in this study was the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). Self-efficacy is how one conceptualizes and operationalizes agency and is a function of capability, influencing the way a person thinks, feels, and acts (Bandura, 1994; Bandura, 1997). For teachers then, self-efficacy is the extent to which they feel capable of success in the classroom. This survey measures teachers' efficacy in student engagement, instructional practices, and classroom management, determining the extent to which teachers feel they have influence over these spheres of their work. Several items in the MBI-ES (1986) and the modified TSI (Richards, 2012) address self-efficacy and were included in the instrument, so I chose five items from the TSES (2001) to focus on self-efficacy in terms of student learning since this was not captured in the previously mentioned instruments. Questions were asked using a nine-point Likert scale format and permission to use the scale was obtained from Dr. Tschannen-Moran directly (see Appendix I).

I used the HSP Scale (1996) and the MBI-ES (1986) instruments in full. I selected items from the revised TSI (1984; 2012) and the TSES (2001) that best aligned with the literature and with my research questions to prevent survey fatigue. For example, because burnout is highly attributed to working conditions (Simon and Johnson, 2013), I ensured that the survey contained a sufficient number of items to appropriately address teachers' working conditions. I also wrote a few items to gather information not covered by any of the scales since the impact of the physical work environment and current school leader support was not addressed but could have potentially been the experience of teachers who present with the SPS trait. I reversed some items

to vary the questions and to confirm respondents' answers. Targeted constructs and sample questions for each instrument are shown in Table 3.1. I divided the survey into six sections, the first of which asked demographic questions about the respondents' teaching background, followed by one section for each of the four scales and ending with demographic questions about the respondents' sex, age, and race or ethnicity. I used the original Likert scales to maintain fidelity to the original instruments and further increase validity.

Table 3.1

Survey's Targeted Constructs and Corresponding Sample Questions That Align Characteristics of Sensory-Processing Sensitivity with Work Life

Construct(s)	Survey Instrument	Sample Questions
Sensory-Processing Sensitivity	Highly Sensitive Person Scale (1996)	Are you conscientious? Do you get rattled when you have a lot to do in a short amount of time? Do you become unpleasantly aroused when a lot is going on around you? When you must compete or be observed while performing a task, do you become so nervous or shaky that you do much worse than you would otherwise?
Risk of burnout	Maslach Burnout Inventory-Educators Survey (1996)	I feel emotionally drained from my work I feel used up at the end of the workday I feel I'm working too hard on my job

Professional stressors	Teacher Stress Inventory (Fimian, 1984)	My personal priorities are being shortchanged due to time demands. I lack recognition for the extra work and/or good teaching I do.
	Revised Teacher Stress Inventory (Richards, 2012)	I feel physically exhausted much of the time. I feel overwhelmed with what is expected of me as a teacher and have doubts about my ability to make a difference in students' lives. I am not able to seek out social support when I feel particularly stressed with school issues.
Self-efficacy	Teachers' Sense of Efficacy Scale (2001)	How well can you establish a classroom management system with each group of students? How much can you do to help your students value learning? How well can you provide appropriate challenges for very capable students?
New items targeting the work environment	N/A	I find the physical environment of my classroom to be over-stimulating. I find the physical environment of my school to be over-stimulating.
New items targeting school leader support	N/A	I do not receive adequate feedback from my school leaders. I do not have opportunities to reflect on my teaching practice. I do not have opportunities for professional development that meets my individual needs. I do not have adequate opportunities to learn from colleagues and/or school leaders.

Quantitative Analyses

I used both descriptive and inferential techniques to analyze the survey data. I ran descriptive statistics, frequencies, and cross-tabulations to examine variations in SPS by demographics, including sex and race/ethnicity. Data was further analyzed using bivariate correlations and regression models to test for relationships between SPS and the constructs of

burnout, stress, and self-efficacy, controlling for demographic characteristics and professional characteristics (e.g., years of service, school level, and source of teacher training).

Qualitative Data Collection

Participants. The qualitative phase of the study sought to uncover the lived experiences of teachers in their own words. I recruited seven teachers who had high scores on the Highly Sensitive Person Scale (Aron, 1996), and six of the seven participants had been teaching longer than five years. Participants were first asked to write a response to a journal prompt and then engaged in a one-on-one interview. Interviews lasted between 45-60 minutes and allowed for a deeper discussion of the participants' experiences.

Interview protocol. Because people with characteristics of SPS have complex inner lives (Aron, 1996), the interviews and journals created the opportunity to hear the perspectives of this population that could not be captured through a survey. The very nature of having SPS necessitates that participants have a chance to process on a deeper level, think through responses before answering, and reflect and adjust as needed.

The journal prompt was emailed to teachers once they agreed to participate in the qualitative phase of the research. The prompt was a guiding question related to SPS that asked participants to think about a recent situation when demand on their energy was high and to describe how they coped with the situation and how their coping strategies or approaches were potentially different from their colleagues (see Appendix D). I asked teachers to record their responses in a Microsoft Word document or Google Doc and to email or share their document when they were finished. Several teachers did not return their journal at the time of the interview, so when I met those participants for the interview, I gave them 10-15 minutes to complete the

journal before starting the interview. Journals were saved as a Word document on a laptop and given a password to protect confidentiality.

During the interview, I used a semi-structured protocol (see Appendix E). At the beginning of the interview, I introduced the purpose of my study in broad terms (e.g., “I am studying the everyday experiences of teachers in the classroom to address teacher attrition”) so as not to influence participants’ responses or identify the trait I was studying. Subsequent questions sought to expand responses from the survey, provide explanation for trends in the survey data, or address the remaining research questions. The questions asked participants to explain in greater depth what they experienced in the classroom and to draw out information about how characteristics of SPS may or may not have affected their perception of these experiences. Teachers who participated in the qualitative phase of the project were further incentivized with an Amazon gift card.

Because this study sought to understand the effect of SPS during cognitive appraisal, a focus on individual meaning and rendering the complexity of a situation was vital for accurately capturing participants’ experiences (Creswell, 2014, p. 4). Participants had the opportunity to describe in greater detail their professional stressors and challenges, their risk of burnout, how they make meaning of their work experiences, and the strategies they feel are most effective for helping them succeed in the profession. This approach helped explain the results of the survey by revealing patterns and supporting details. At the end of the interview, I gave participants background information on SPS and asked them whether the description felt accurate for them.

The qualitative phase of the study captured the personalities of teachers with a high likelihood of SPS and gathered their coping strategies that helped them feel successful. An explanatory mixed methods design was necessary because understanding the extent to which

having characteristics of SPS affects teachers and then the description of how SPS characteristics affect them are equally important.

Qualitative Analyses

Through the interviews, I hoped to delve deeper into the trends identified in the quantitative portion of the data collection and give participants the platform to share their experiences, their challenges, and their personal and professional strategies for staying in the classroom. I simultaneously reviewed transcripts and listened to the audio recording to check for errors, recording notes and initial impressions as I did so. I also utilized a reflexivity approach, reflecting on how my personal background and experiences “hold potential for shaping [my] interpretations” because “[this is] more than merely advancing biases and values in the study, but how [my background] actually may shape the direction of the study” (Creswell, 2014, p.186). This approach factored in my own experiences as a teacher and as someone who exhibits characteristics of SPS as I ascribed meaning and advanced themes during the data analysis.

After the interviews had been transcribed, I completed three rounds of coding of both the interviews and journals. I first read all of the interviews and journals multiple times and then color-coded the data for emerging themes. I then color-coded the data again and compared my second round to the first round to verify and reconcile any discrepancies in my coding. Emergent themes were manifestations of SPS characteristics, professional challenges and stressors, school-based support, persistence, and workday management. From each of these themes, sub-themes were identified based on repeated words and phrases. Sub-themes that emerged as significant were translated into findings and each finding was cross-walked with relevant quotes that served as reliable, relevant evidence.

Ethical Considerations

My study presented two major ethical considerations: preventing stigma against teachers with SPS and limiting bias as someone who identifies as having SPS. First, the nature of SPS – that it is a physiological trait and so greatly affects a person’s temperament – could potentially create stigma among school community members who might interpret it as a disorder at worst or a disadvantage at best. I had concerns that study participants would opt out of the study once they received information about SPS, but this did not occur. I conveyed to each participant that the goal of my study was to communicate that having SPS, especially as a teacher, has notable advantages. I reiterated that I wanted to highlight the positive characteristics of SPS and the ways those characteristics complement the teaching profession.

Secondly, I self-identify as having SPS. I consider the trait an important part of my identity and use my understanding of it often as I navigate relationships, work, and my personal goals. This perspective presented the ethical dilemma of introducing bias into the study and/or becoming too subjective during data collection, particularly during the qualitative phase. During the interviews, I had a desire to express how and why I understood what they were describing, but I made a conscious effort to utilize the protocol and simply follow where their responses led the conversation. While I analyzed the data, I sought out feedback and kept my personal perspectives as neutral as possible.

Access and Role Management

In order to access teachers, I submitted an application to the district’s IRB. Once approved, I contacted the principal of each school directly and asked for their permission to send the survey to teachers using their school distribution list. Per the district’s IRB guidelines, I assured principals that I would request that teachers complete the survey outside of working

hours. I also communicated the nature of the survey, the number of times I would contact teachers, that some teachers would be contacted for the qualitative phase of the study, and how the results would be used and shared. Most importantly, I described how the study could potentially benefit them and their teachers. Of the 19 schools I contacted, principals at 18 of the schools gave me permission to email the survey to their teachers.

The role I took during my study was as an ally. I presented my study as an opportunity to help districts understand teachers better and help teachers understand themselves better. I explained that I work primarily as a teacher support provider and that the study would be beneficial to both teachers and school leaders because the data analysis would elicit tangible coping strategies that support teachers in the classroom, and, hopefully, promote teacher retention.

Additionally, at the onset of the interview, participants did not know why they had been asked to interview; however, at the end of the interview, I debriefed them on SPS and how they scored high in this trait according to the HSP Scale (1996). I gave them an opportunity to evaluate the accuracy of the description and add to or clarify any of their responses. Participants also had the option to opt out of the study, which none chose to do. I was very transparent with participants so that they did not feel misled and so that they completely understood the goals of my research, all while maintaining my objectivity as the researcher. Ultimately, I assured them that their perspectives and suggestions were valuable and that they will help many teachers entering the profession stay in a profession that greatly benefits from their contributions.

Credibility

To establish the credibility of my study, I analyzed data in two phases using three sources: surveys, interviews, and journaling. The two phases of data collection and analysis

allowed me to compare results across multiple measures, reducing the risk of bias and alternative explanations. For each part of the study, I used multiple techniques to ensure accurate analyses and results. After determining my findings, I sent each teacher who participated in the qualitative phase an excerpt from my findings chapter as a member check.

To ensure the validity of the survey, I used established instruments and ran an internal validity test to confirm the validity of the survey instrument as a whole, which is further detailed in Chapter Four. I ensured the credibility of the qualitative part of my study in multiple ways. First, I established a standardized protocol for the interview, choosing key areas to explore in each one through semi-structured questioning. I also practiced my probing skills to elicit data-rich responses. Additionally, I prepared a handout that described the major features of SPS, answered some frequently asked questions about the trait, and listed some resources for further information (Appendix F). This provided participants with the same information and answered their questions without introducing bias. The participants' journals reflected their perspective as teachers with SPS and were an additional source for their attitudes, beliefs, and view of the world (Merriam, 2009, p. 143). These data were corroborated with the data from the survey and the interviews. I kept a detailed record of all my actions throughout my data collection and analysis phases and recorded analytic memos so that my study could be replicated and/or so I can use my data for a future study.

CHAPTER FOUR: QUANTITATIVE FINDINGS

Introduction

In this chapter, I present the data and findings from a survey administered to 114 urban public school teachers in Southern California. The survey included the Highly Sensitive Person Scale (1996) to gauge teachers' likelihood of presenting with characteristics of the Sensory-Processing Sensitivity (SPS) trait, a modified version of the Teacher Stress Inventory (Fimian, 2000; Richards, 2012) to measure teachers' stress levels, a selection of questions from the Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001) to explore how teachers feel about their effectiveness in their professional role, and the Maslach Burnout Inventory-Educators Survey (1996) to determine teachers' current risk of burnout. Using linear and logistic regression analyses to analyze survey data, the study aimed to determine the extent to which having a high likelihood of presenting with Sensory-Processing Sensitivity places teachers at a higher risk of burnout and stress compared to their colleagues who do not present with the SPS trait.

I sent the survey to 711 teachers in 18 different schools. Respondents included teachers from all grade levels, creating a pool of teachers from various backgrounds and perspectives. The number of respondents totaled 114 for a 16% response rate. I sent an initial email using each school's distribution list and then followed up with two reminder emails with each email spaced at least a week apart. One principal I approached declined participation and I was not able to use that school's email list.

The data from the survey revealed a statistically significant positive relationship between SPS and burnout that was mediated by stress and self-efficacy. The data also revealed a statistically significant positive correlation between SPS and the emotional exhaustion construct of burnout. Additionally, SPS and stress have a positive, statistically significant relationship, but

no significant association exists between SPS and self-efficacy. This chapter discusses these findings in detail, starting with a description of the sample population.

Describing the Sample of Survey Respondents

Comparing Demographic Characteristics Between the Sample and District Population

I used frequencies, cross-tabulations, and measures of central tendency to provide a snapshot of the teachers who responded to the survey. Tables 4.1 and 4.2 compare the demographics of the survey respondents (n=114) to the demographics of the district population, which is significantly larger. The majority of survey respondents (58.8%) identified as female while slightly more than one-third of the sample (36%) identified as male, with 5.2% of respondents declining to disclose their sex. As shown in Table 4.1, the population of the district skews even more heavily female, as 70.4% of all teachers in the district are female compared to an 11.5 percentage point deviation from females' representation in the survey sample.

Table 4.1

Proportional Distributions of Teachers' Sex, by Survey Sample and District Population

	Survey Distribution	District Distribution
Female	58.8	70.4
Male	36.0	29.6
Prefer not to say	5.2	n/a

The survey sample also deviated slightly from the population of teachers in the district with respect to race/ethnicity, as shown in Table 4.2. The survey sample had an overrepresentation of teachers of color and an underrepresentation of white and Caucasian faculty relative to the district population. In fact, the proportion of white and Caucasian faculty

in the district population more than doubles the share of white and Caucasian faculty in the survey sample (34.1% district versus 15.8% survey sample). A distinct difference between the survey sample and the district population also existed in the Hispanic and Latino population. Hispanic or Latino teachers made up 40.4% of the survey distribution but only constituted 33.7% of the district population. Among Asian and Pacific Islander teachers, the distribution of teachers in the sample population is 6.1 percentage points higher than the distribution in the district population (16.7% versus 10.6%).

Table 4.2

Proportional Distribution of Teachers' Race/Ethnicity, by Survey Sample and District Population

	Survey Distribution	District Population
Hispanic or Latino	40.4	33.7
Asian or Pacific Islander	16.7	10.6
Caucasian or White	15.8	34.1
African American or Black	13.2	9.2
Multiracial or Other ¹	14.0	12.4 ²

¹Includes the category "None Reported"

The survey collected several other demographic measures; however, the district did not have information on these measures for all teachers employed by the district. Table 4.3 provides frequency distributions for age, grade level currently teaching, number of years teaching, and source of teacher training. A plurality of survey respondents reported their age as being between 41 and 50 years old (38.6%) whereas just 13.2% of teachers in the sample were 30 years old or younger. Slightly less than half (44.7%) of respondents taught in a high school, and a super

majority (79.8%) reported at least five years of teaching service. Respondents were nearly evenly divided with respect to their training, as 41.2% received training from a Dual Master's/Certification program compared to 40.4% whose training came in the form of an undergraduate program (40.4%).

Table 4.3

Descriptive Statistics of the Sample Population

Age	Percent
30 years or younger	13.2
31-40 years old	31.6
41-50 years old	38.6
50 years or older	16.7
Grade Level Currently Teaching	Percent
Elementary (K-5)	23.7
Middle school/Junior high (6-8)	31.6
High school (9-12)	44.7
Number of Years Teaching	Percent
0-1 years	3.5
2-3 years	9.6
4-5 years	7.0
More than 5 years	79.8
Source of Teacher Training	Percent
Dual Master's/Certification	41.2
Alternative Route to Licensure (ARL)	6.1
Teach First program (e.g., Teach for America)	3.5
Undergraduate program	40.4
Other ²	8.8

²Other includes district sponsored programs or related Master's degrees

Calculating the Presence of the Sensory-Processing Sensitivity Trait

In order to examine relationships between SPS, burnout, stress, and self-efficacy, I created scaled variables by summing the items corresponding to each construct. For the SPS trait and the measures of burnout, I analyzed a frequency distribution of the scales to determine

appropriate cut points designating the presence of the SPS trait and whether the respondent scored at a level suggesting a risk of burnout. For SPS, respondents' scores from the Highly Sensitive Person Scale (1996) ranged from 30 to 179, with a highest possible score of 210. As demonstrated by the similar number of participants who fell above and below the median, a natural break point did not occur, which countered the distribution of scores found by others using this scale. Aron (2013), in her instructions for researchers, indicates that a natural break should occur, and in Aron and Aron's (1997) study, respondents to the Highly Sensitive Person Scale (1996) formed a group around the top 25% of scores. Figure 4.1 shows the distribution of respondents' SPS scores, the mean of which was 109.57.

The three survey items with the highest means were being deeply moved by the arts and music, being conscientious, and trying hard to avoid making mistakes or forgetting things. The lowest mean scores were items about being overwhelmed by bright lights or loud noises, being particularly sensitive to the effects of caffeine, or often feeling the need to withdraw or retreat in order to gain privacy or relief from stimulation (see Appendix I).

Because approximately 15-20% of the general population presents with characteristics of SPS (Aron, 1996), I determined that respondents with the highest 20% of scores were likely to present with characteristics of SPS and that the remaining 80% were unlikely to present with characteristics of SPS. A cut point corresponding to the top quintile of scores meant that respondents with a score of 132 or higher were considered likely to present with characteristics of SPS. Because four respondents had a score of 132, this category included a total of 25 respondents and made up 21.9% of the sample population. The primary purpose for dividing the respondents into two groups was to identify my interview sample of teachers who were likely to present with the SPS trait.

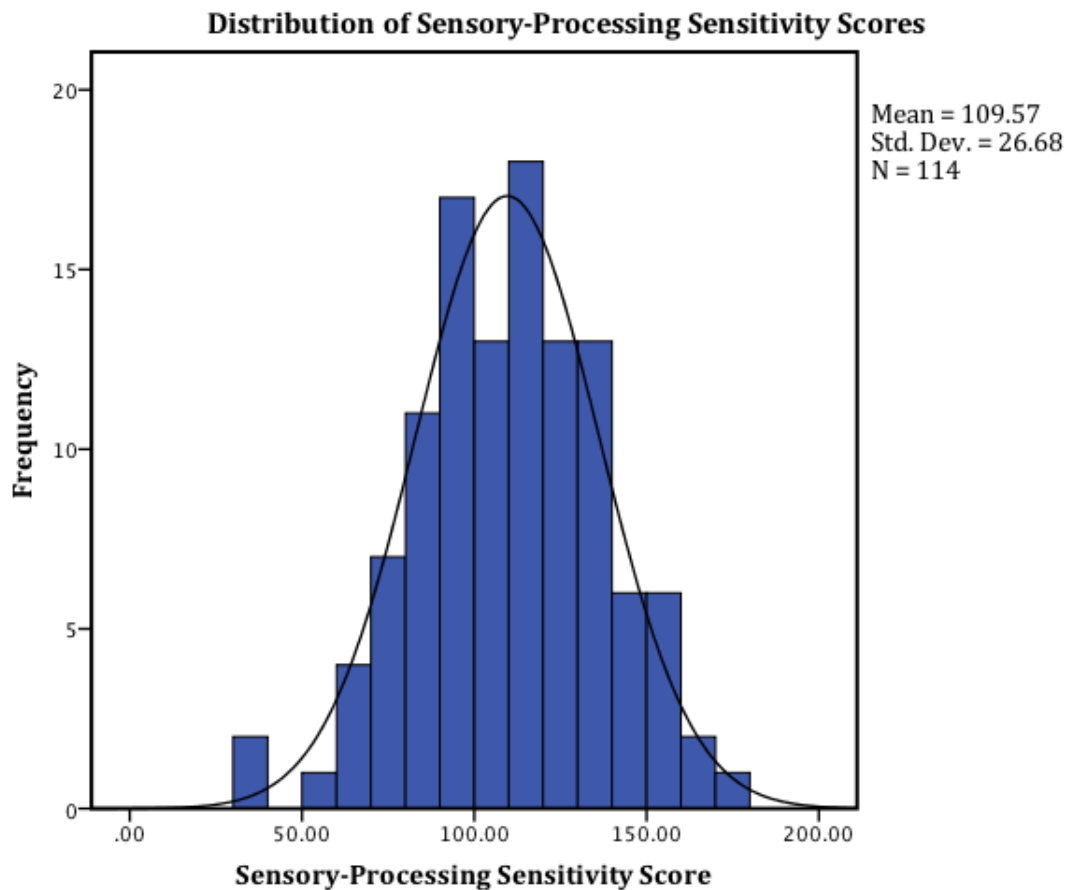


Figure 4.1. Histogram of Sensory-Processing Sensitivity Scores

In addition, I used cross-tabulations to examine whether particular demographic groups had a greater likelihood of presenting with SPS. Nearly one-quarter of women (23.9%) had scores indicative of the presence of the SPS trait compared to 17.1% of men. Analysis by age revealed similar contrasts. More than one-quarter (26.3%) of teachers over the age of 50 had an SPS score suggesting the presence of the SPS trait, and teachers aged 30 or younger had the lowest rate of presenting with the SPS trait (20%).

Analysis by years of teaching experience revealed that teachers with more than five years of experience had a greater likelihood of presenting with SPS, making up 16.7% of the total population. By race/ethnicity, teachers who identified as Hispanic or Latino had the highest percentage of the total sample population who had SPS scores indicating the presence of the trait (8.8%). Within racial/ethnic groups, teachers who identified as Asian or Pacific Islander were the most likely to have SPS scores suggesting the presence of the trait (36.8%), while teachers who identified as Black or African American were the least likely to have scores suggesting the presence of the trait (6.7%).

Table 4.4

Cross-tabulations Between Sensory-Processing Sensitivity and Respondents' Demographics

	High Sensory-Processing Sensitivity Score		
	Count	Percent Within Age	Percent of Total
30 years or younger	3	20.0	2.6
31-40 years	8	22.2	7.0
41-50 years	9	20.5	7.9
Older than 50 years	5	26.3	4.4
	Count	Percent Within Ethnicity	Percent of Total
Latino or Hispanic	10	23.9	9.6
Asian or Pacific Islander	7	36.8	6.1
Caucasian or White	5	27.8	4.4
African American or Black	1	6.7	0.9
Multiracial or Other	2	12.5	1.8

Calculating Burnout

In addition to calculating the likelihood of presenting with characteristics of SPS, I calculated the likelihood of burnout among respondents. Three distinct constructs contribute to the determination of teachers' risk of burnout: emotional exhaustion, depersonalization, and personal accomplishment. For each construct, I coded respondents scoring in the top half of the

distribution as being at risk of burnout. This meant that a score of 20 or higher indicated risk of emotional exhaustion, a score of 4 or higher indicated risk of depersonalization, and a score of 39 or less indicated a decreased sense of personal accomplishment (personal accomplishment is reverse-coded). I considered teachers who were at risk in two of those three constructs at overall risk of burnout.

Roughly half of the respondents (48.2%) were at overall risk of burnout. Of the 55 respondents who had scores that indicated the highest risk of burnout, the majority (55%) scored in the at-risk ranges in all three constructs. Eleven respondents were at risk because of emotional exhaustion and depersonalization while ten were at risk because of depersonalization and low personal accomplishment. Only four respondents were at risk because of emotional exhaustion and low personal accomplishment. Survey items with the highest mean scores related to respondents feeling emotionally drained or “used up” at the end of the work day and a general feeling of working too hard (see Appendix I).

I also wanted to determine the prevalence of burnout within subgroups and therefore ran cross-tabulations between risk/non-risk of burnout and demographic subgroups. Women made up more than half of the at-risk group (56.4%), while men made up 40% of the at-risk group. With respect to age, teachers who were between the ages of 41 and 50 made up the largest majority of the at-risk group at 45.5%, while teachers who were ages 50 years or older made up the smallest percentage of the at-risk group (7.3%). Additionally, teachers who were between the ages of 41 and 50 had the highest rates of risk of burnout among the sample population, making up 21.9% of all respondents. Teachers who were 30 years or younger had the highest rates of risk of burnout within their subgroup; 60% of teachers in that age group were at risk of burnout (Table 4.5).

Table 4.5 shows that for subgroups by number of years in the profession, teachers who had been teaching longer than five years constituted a significant majority of the teachers at risk of burnout; they made up 78.2% of the total at-risk population compared to the other age groups. Teachers who had been teaching 2-3 years constituted the second-highest at-risk group, making up 10.9% of the at-risk population. More than half of Asian or Pacific Islander teachers (57.9%) had scores indicating risk of burnout; however, due in part to their stronger representation within the survey sample, Hispanic or Latino had the highest rates of risk of burnout among all teachers, making up 18.4% of the total population.

Table 4.5

Cross-tabulation Between Burnout and Respondents' Demographics

	Count	Percent Within Burnout Group	Percent of Total Sample Population
Sex			
Women	31	56.4	27.2
Men	22	40.0	19.3
Prefer not to say	2	3.6	1.8
Age			
30 years or younger	9	16.4	7.9
31-40 years	17	30.9	14.9
41-50 years	25	45.5	21.9
Older than 50 years	4	7.3	3.5
Years Teaching			
0-1 years	2	3.6	1.8
2-3 years	6	10.9	5.3
4-5 years	4	7.3	3.5
More than 5 years	43	78.2	37.7
Ethnicity			
Latino or Hispanic	21	38.2	18.4
Asian or Pacific Islander	11	20.0	9.6
Caucasian or White	7	12.7	6.1
African American or Black	8	14.5	7.0
Multiracial or Other	8	14.5	7.0

Teacher Stress Inventory Reliability

After creating measures related to the presence of the SPS trait and teachers' risk of burnout and analyzing the distribution of these variables across available demographic characteristics, I analyzed the validity of the Teacher Stress Inventory scale given that the items appearing in the survey reflected modifications and additions to the original construct proposed by Fimian (1984). These modifications and additions provided the opportunity to cross professional stressors with characteristics of SPS and school-based support. The Cronbach's Alpha for the scale was .847, indicating reliability (Agresti & Finlay, 2008). Additionally, the distribution of response scores was normal and had a mean of 58.75 (Figure 4.2). According to the highest mean scores, respondents were most stressed because of taking work home, not having enough time to relax, and not receiving enough recognition for their hard work. Respondents were least stressed by their physical environment, either in their class or in their school, and did not feel overwhelmed by the expectations of the job nor any corresponding doubts about their capability to fulfill expectations (see Appendix I).

Results of Multiple Linear and Logistic Regression Analyses

Correlations Among Sensory-Processing Sensitivity, Burnout, Stress, and Self-Efficacy

Through an examination of bivariate correlations, I first investigated whether respondents' raw SPS scores accounted for a significant proportion of the variance within each subscale of burnout. The analyses did not show statistically significant relationships between SPS scores and either depersonalization or personal accomplishment. However, a statistically significant, positive relationship existed between SPS scores and emotional exhaustion, which suggests that teachers with greater sensitivity to sensory processing also tend to have a risk of emotional exhaustion. Additionally, as shown in Table 4.6, teachers' SPS scores significantly

and positively correlated with stress, suggesting that teachers who are more likely to present with SPS also report experiencing greater levels of stress in their work.

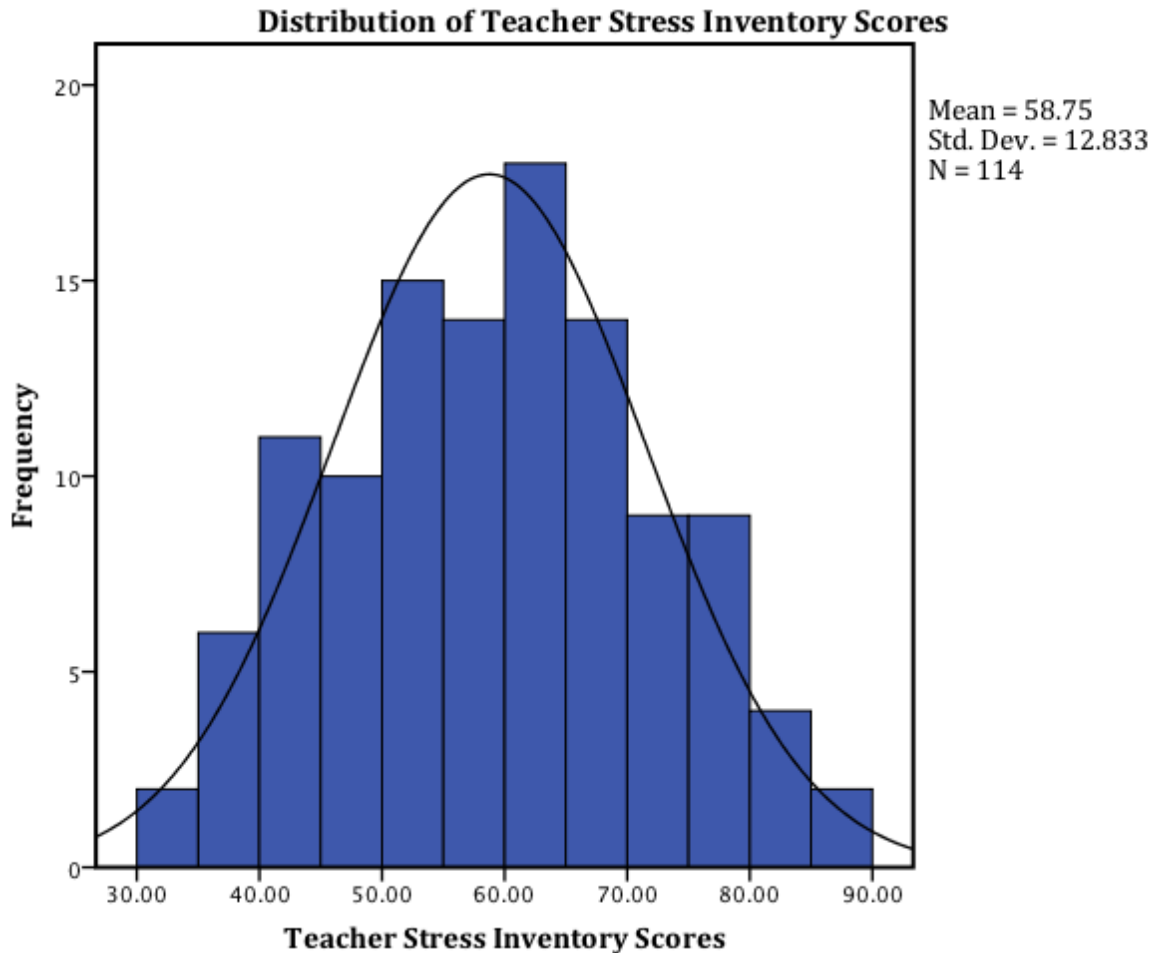


Figure 4.2. Distribution of Teacher Stress Inventory Scores

The correlation between teachers' SPS scores and their self-efficacy was not statistically significant, which means that increases or decreases in teachers' SPS scores do not relate to self-efficacy. By contrast, the analyses identified a significant and negative correlation between self-efficacy and stress, which indicates that teachers who feel more confident in their teaching ability also tend to feel less stressed at work. Additionally, statistically significant relationships

existed between self-efficacy and each of the three constructs of burnout, including a positive relationship with personal accomplishment and a negative relationship with both emotional exhaustion and depersonalization (Table 4.6). Therefore, as teachers' sense of self-efficacy at work increases, personal accomplishment increases as well, while stress, emotional exhaustion, and depersonalization decreases. More simply, teachers' confidence in their teaching ability reduces their stress, risk of emotional exhaustion, and risk of feeling detached from others but augments their sense of personal accomplishment. The five survey items pertaining to self-efficacy had similar scores well above the median, the highest of which was respondents feeling capable of providing alternative explanations when students were confused (see Appendix I).

Table 4.6

Correlation between Sensory-Processing Sensitivity, Teacher Stress Inventory, Teacher Self-Efficacy Scale, and Emotional Exhaustion Scores

		Sensory-Processing Sensitivity Correlation	Teachers' Sense of Self-Efficacy Correlation
Teacher Stress Inventory Score	Pearson Correlation Sig. (2-tailed)	0.27*** ***	-0.33** **
Teachers' Sense of Self Efficacy Score	Pearson Correlation Sig. (2-tailed)	-0.11	
Emotional Exhaustion Score	Pearson Correlation Sig. (2-tailed)	0.48*** ***	-0.21* *
Depersonalization Score	Pearson Correlation Sig. (2-tailed)		-0.39** **
Personal Accomplishment Score	Pearson Correlation Sig. (2-tailed)		0.49** **

***. Correlation is significant at the 0.001 level (2-tailed).

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

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

Using multiple linear regression analyses, the data revealed that neither respondents' SPS scores nor most of the demographic variables significantly predicted whether a teacher was at overall risk of burnout; however, teachers' stress, sense of self-efficacy, and source of teacher training were each predictive of burnout. Table 4.7 shows that as a teacher's stress score increases, the risk of burnout also increases. In other words, teachers who feel more stressed in their work are more likely to be at risk of burnout. The statistically significant negative relationship between teachers' self-efficacy and burnout risk suggests that greater confidence in teaching can mitigate teachers' risk of burnout. The model explains roughly one-third of the variance in burnout risk (37.3%).

Table 4.7

Linear Regression Results Predicting Respondents' Risk or Non-Risk of Burnout

R	R Square	Adjusted R Square	Std. Error of the Estimate	
.611 ^a	.373	.319	.41424	

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	Sig.
(Constant)	0.172	0.52		
Sensory-Processing Sensitivity Score	0.00	0.00	0.12	
Teacher Stress Inventory Score	0.02	0.00	0.41	***
Teacher's Sense of Self-Efficacy Score	-0.02	0.01	-0.20	*
Age	-0.05	0.05	-0.08	
Sex	-0.04	0.07	-0.04	
Ethnicity	-0.02	0.03	-0.06	
Years teaching	0.04	0.06	0.07	
Grade level	-0.07	0.06	-0.12	
Source of teacher training	-0.09	0.03	-0.22	**

***. Correlation is significant at the 0.001 level (2-tailed).

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

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

Finally, I conducted a logistic regression to analyze the recoded dichotomous measure of burnout to understand how the presence of the SPS trait, stress, and self-efficacy contributed to teachers' likelihood of burnout. The data revealed that a statistically significant relationship between the SPS trait and the likelihood of burnout exists when the SPS indicator was the only independent predictor in the model. This relationship suggests that an increased likelihood of presenting with the SPS trait may indicate a higher risk of burnout among teachers (OR=1.02, $p < 0.019$). This relationship, however, was mediated by measures of teachers' stress, as the introduction of stress to the model eliminated the statistically significant relationships between SPS and burnout risk. As teachers' stress at work increases, their risk of burning out also significantly increases. By contrast, teachers who report greater confidence in their ability to teach had significantly reduced odds of burning out, since self-efficacy had a negative relationship with emotional exhaustion and depersonalization. As shown in Table 4.8, teachers who took an alternative route to licensure had a significantly higher risk of burnout than their colleagues who completed a dual Master's/certification program.

Table 4.8

Logistic Regression Results Predicting Respondents' Risk of Burnout

		Variables in the Equation		
		Exp(B)	S.E.	Sig.
Sensory-Processing Sensitivity Score		1.02	0.01	
Teacher Stress Inventory Score		1.14	0.03	***
Teachers' Sense of Self-Efficacy Score		0.82	0.08	**
Sex	Female			
	Male	0.99	0.88	
	Prefer not to say	0.05	1.67	
Age	30 years or younger			
	31-41 years old	0.52	1.21	
	41-50 years old	1.99	1.46	
	Older than 50 years	0.84	1.60	
Ethnicity	Latino or Hispanic			
	Asian or Pacific Islander	1.32	0.93	
	Caucasian or White	0.15	1.19	
	African American or Black	1.26	1.18	
	Multiracial or Other	1.41		
Years teaching	0-1 years			
	2-3 years	26.50	3.09	
	4-5 years	38.26	3.16	
	More than 5 years	27.54	3.00	
Grade level	Elementary (K-5)			
	Junior High/Middle School (6-8)	1.55	0.97	
	High School (9-12)	2.75	1.02	
Source of teacher training	Dual Master's/Certification			
	Alternative Route to Licensure	36.44	1.54	*
	Teach First Program	507813303	18893.74	
	Undergraduate Degree	0.31	0.69	
	Other	0.05	1.57	
Constant		0.01	4.15	

***. Coefficient is significant at the 0.001 level (2-tailed).

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

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

Summary

A series of frequencies, cross-tabulations, and regression models, including linear and logistic, showed that having an increased likelihood of presenting with characteristics of SPS was a predictor of burnout, yet stress fully mediated this relationship. In other words, teachers with greater sensitivity tend to experience more stress at work, and stress directly connects to an increased risk of burnout. Independent of stress, teachers' confidence in their teaching ability reduced their odds of burning out. Additionally, the only demographic variable that reliably predicted risk of burnout was source of teacher training, most notably attending an alternative route to licensure pathway. Analyzing the subscales of burnout individually revealed a statistically significant relationship between SPS scores and emotional exhaustion as well as SPS and stress, both of which will be discussed in more detail in Chapter 6. Furthermore, self-efficacy significantly correlated with stress and each of the three constructs of burnout. In the next chapter, I discuss the interviews and journals collected from teachers who had high scores on the Highly Sensitive Person Scale (1996) and the findings explicated from the resulting qualitative data.

CHAPTER FIVE: QUALITATIVE FINDINGS

Introduction

This chapter presents the qualitative data obtained from journals and one-on-one interviews with seven teachers who had scores on the Highly Sensitive Person Scale (1996) in the top 21.9% of the sample population. A total of thirteen teachers had SPS scores in the top 20% and volunteered their name and contact information. I sent three emails to each teacher, starting with an initial email inviting them to participate and then two reminder emails sent at least a week apart. Seven teachers accepted and scheduled an interview. The journals and interviews elicited data on manifestations of characteristics of Sensory-Processing Sensitivity (SPS), and all interviewed teachers demonstrated at least one characteristic. The data also revealed teachers' challenges in the workplace and the coping strategies they used to both manage their workday and persist in the profession. Lastly, the data uncovered their cognitive appraisal of themselves and their experiences in the classroom, which emerged as greater self-awareness and self-understanding.

Analyses of the data identified five overarching findings. First, all interviewed teachers demonstrated at least one characteristic of Sensory-Processing Sensitivity, and three demonstrated all four major characteristics. In some cases, even though a participant only demonstrated one or two characteristics, the intensity with which the characteristic emerged was noteworthy. Second, teachers identified competing time demands and colleagues as their top sources of stress, which compromised their physical and emotional energy. Third, routines of time management, adequate preparation, flexibility, and recuperation supported teachers in managing their workday. Fourth, commitment to students, reflective practice, and collegiality re-centered and reenergized teachers, helping them sustain their commitment to the profession. Lastly, the disclosure that interviewees had scored in a range suggesting the presence of the SPS

trait contributed to an immediate and augmented self-awareness that offered greater clarity to their classroom experiences. These findings are discussed in more detail in the following sections. All teachers participating in journaling and interviews were given a pseudonym.

Profiles of Teacher Interviewees

The qualitative phase of the study collected data from three females and four males. Four participants were teachers of color while the other three interviewees identified as white. Six of the seven teachers had more than five years of experience in the classroom, and five of those teachers indicated during their interview that they had more than ten years of experience. To better understand the teachers described in this chapter and their relative scores for SPS, stress, and burnout, Table 5.1 summarizes these data and shows their scores as percentiles relative to the sample population. As described in Chapter Three, respondents who scored in the top half of the distribution for each of the three constructs—emotional exhaustion, depersonalization, and personal accomplishment—were identified as being at risk of burnout for that construct. I considered teachers who were at risk in two of those three constructs as at overall risk of burnout; therefore, three of the seven teachers participating in the qualitative phase of the study were at risk of burnout.

In the next section, I describe the characteristics of SPS that emerged during the participants' journals and interviews and explore further the challenges and subsequent coping strategies they used to manage their workday and persist in the profession.

Table 5.1

Sensory-Processing Sensitivity, Stress, and Burnout Profiles for Qualitative Participants, by Percentile

	Sensory-Processing Sensitivity	Teacher Stress Inventory	Teachers' Sense of Self-Efficacy	Risk of Burnout*	Demographics: Sex Age Race/Ethnicity Years of Experience
Anna	91	98	71	EE, DP, and PA	Female 30 years or younger Multiracial More than 5 years
Jonathan	90	51	4	EE, DP, and PA	Male 41-50 years old Pacific Islander More than 5 years
Lauren	97	60	12	DP and PA	Female 50 years or older White or Caucasian More than 5 years
Marco	80	57	30	DP	Male 30 years or younger Hispanic or Latino 2-3 years
Marshall	97	30	94	DP	Male 50 years or older Asian More than 5 years
Nadia	93	65	54	EE	Female 31-40 years old White or Caucasian More than 5 years
Will	85	3	64	None	Male 50 years or older Caucasian or White More than 5 years

*EE=Emotional exhaustion (≥ 19)

DP=Depersonalization (≤ 4)

PA=Personal accomplishment (≥ 39)

The Manifestation of SPS Characteristics in Teachers

Characteristics of SPS are manifested in four major ways: depth of processing, emotional reactivity, sensitivity to subtle stimuli, and susceptibility to overstimulation. As explained in Chapter Three, I analyzed qualitative data for either repetition or intensity to determine whether a participant displayed a characteristic of SPS, meaning I looked for descriptions that indicated patterns of behavior or that were noticeably prominent in their account. All but one of the participants described emotional reactivity, and most of them associated it with empathy toward students. Five of the seven teachers offered comments suggesting alignment with depth of processing, which involves a significant investment of mental energy and reflection into events, and susceptibility to overstimulation, meaning a person is more easily stressed by noise or chaos and may seek out more quiet time alone than their peers. Just three participants offered comments related to their sensitivity to subtle stimuli, and all but one felt the description of SPS provided at the end of the interview resonated with them and provided a greater sense of self-understanding. The shaded boxes in Table 5.2 represent each participant’s identification with that facet of SPS.

Table 5.2

Evidence of Characteristics of Sensory-Processing Sensitivity Among Participants as Indicated by Shaded Boxes

	Depth of Processing	Strong Empathy/ Emotional Reactivity	Sensitivity to Subtle Stimuli	Susceptibility to Overstimulation	Description of SPS Resonates
Anna					
Jonathan					
Lauren					
Marco					
Marshall					
Nadia					
Will					

Depth of processing represented by reflection and deliberateness. Depth of processing often surfaces as conscientiousness or spending a lot of time mulling things over (Aron, 1996); five of the seven teachers showed evidence of engaging in these behaviors on a regular basis. Marshall, a high school English Language Arts teacher, said that reflection is a huge part of his life and that he finds an unreflective life to be inadequate: “There is only one thing that I really do, [which is] reflect. They say that an unreflective life is a useless life or something like that.” Similarly, Nadia, who also teaches English Language Arts to high school students, said that as a teacher she’s “always tapping into my personal life and who I am. Which may be why I feel like I know myself so well. Constant reflection. Constant discussion.” Part of the reason Nadia enjoys being an English Language Arts teacher in particular is because it allows her to always make connections between her life and the texts they read and to guide her students to do the same.

Several teachers described this process as a series of reflective questions. Marco, a middle school Special Education teacher, said that as he was preparing for a high-pressure meeting with a parent, he was thinking, “Am I going to get this done? Is the parent going to sign it? Did I make any sort of mistakes? I should have put in more time...I was definitely worried and nervous.” Likewise, Lauren, a special education high school teacher, said that when things do not go well, she thinks about what happened and will replay it. She said,

I’ll start to replay things, like what did I do, what did I say, did I make a wrong decision in the moment, say the wrong thing and that derailed things, or should I have been more assertive, should I have spoken out a little earlier.

These cycles of self-reflective questions, or constant reflection as Nadia described her experience, indicate that these teachers are processing events in great detail and more than once. For each of these teachers, mulling over events in detail receives a noticeable and regular part of their mental attention.

Depth of processing is also displayed as conscientiousness or deliberateness, which three of the teachers referenced as characteristically true of them. Anna, a middle school English Language Arts teacher, led an orientation program for the 13 new teachers at her school this year. During one of her presentations, two of the teachers ignored her, which Anna said likely caused her more stress than her peers. A colleague recommended that she ignore it or not continue the program, but she did not want the other new teachers to miss out. In order to continue providing the orientation to the rest of the group, she decided to endure the rude behavior without saying anything, displaying conscientiousness to the point of sacrificing her own comfort.

Strong empathy or emotional reactivity manifested in support of students. Six of the seven teachers exhibited significant empathy for their students, and all of them attributed their commitment to the profession as directly tied to serving their students, which will be discussed in further detail in Chapter Six. For Marshall, empathy is the sole reason he is a teacher in a high-needs school: “I have a heart for those people who are in need...our kids are so different. They need more sympathy. They need more caring.” Marshall shared that he focuses on generosity in his classroom, giving students money to get food or bringing them lunch, even though it is against district rules. For Marshall, empathy is even more important than teaching students the content:

It's the total person that you're looking at. It's not just teaching them how to do it. They might not get anything from what you teach right now, but with your example and with your attitude toward them, attitude of kindness, and regard to the person, that will stick in their head forever.

Marshall emphasized being a model of empathy and kindness for his students so that they remember what it feels like to be treated well rather than what they learned academically.

Anna demonstrated both strong empathy and high emotional reactivity. Reflecting on the situation with the teachers who were being rude during her professional development and the conversation with her colleague about it, she considered her colleague's feedback to let it go so she would not feel so upset all the time. While she considered the statement wise, a bigger picture of serving the students was more important: "These kids need all of the people that are coming into their lives to be efficient... I just need to make sure that I am as great for them as I can be." She felt that she could not let go of the emotions tied to the situation but redirected the angst and frustration associated with the situation into a stronger, more positive emotional reaction that emphasized her focus on her students and their academic success. The best part of this approach, Anna said, is that the students treat her the same in return. She said that when her students leave her classroom, they wish her a good day and really mean it.

Jonathan, a middle school counselor, had a similar approach, seeing his role as a mentor and guide. "I find myself more like a father. I'm consistently correcting and re-guiding and repositioning them," he said, though in his case the students do not appreciate it as much. He adds, "It's not necessarily appreciated, but I don't mind, because that's what needs to be done." However, Jonathan said building relationships with students is why he is in the teaching

profession. Extending empathy toward students and wanting the best for them helped teachers build positive relationships with students, even if that same regard was not reciprocated.

For two of the teachers, emotional reactivity was more prominent than high empathy. Marco, the third-year teacher, felt frustrated that students were misbehaving in class and that a call home to parents was not solving the problem. He said, “When it came to those challenging students, I took a lot of their insults personally, even though I was repetitively told, ‘Don’t take anything personally.’ Well, I took it personally.” For Marco, learning how to manage the classroom more effectively and not interpret misbehavior as a personal affront was a steep learning curve, and at the same time he was feeling that way, he was also having strong emotional reactions to simply being in the classroom those first two years:

I remember continually coming into the classroom with tons of anxiety. I’d be in the room preparing, the bell would ring, and immediately my heart would start pounding because I did not know what would happen later that day.

The way Marco described this experience shows that these emotional reactions can be so strong that they manifest physically in the form of anxiety or apprehension.

Nadia relayed a similar experience, which for her was concern about whether her students were enjoying her class. She said that she would get anxious, upset, or worried if they seemed like they were not enjoying the class and that this reaction “can be disastrous for a teacher.” Nadia expressed strong emotional reactivity in other situations as well. She once found out that a fellow teacher was upset with her for leaving a napkin behind after eating lunch together and the animosity had built up over time. Eventually, a year after the offense, the fellow teacher confronted her, and Nadia said it was a shock that the person had never told her. She ended up

calling an administrator to relieve her because her reaction was so intense. She was, in her own words, hysterical:

I could see the look on the administrator's face – very understanding and very helpful and didn't question me at the time, but I definitely got the sense that maybe they thought I was overreacting. They didn't understand why I was so worked up.

While her reaction to this trivial incident was strong enough that she needed an administrator to relieve her, Nadia has also had neutral, even restrained, reactions to situations that were more critical. She relayed a time when a student she knew well came into her classroom upset and wanted to be around her and talk. Though the struggle the student was facing was consuming to the student, Nadia said she had to consciously shift her mind to be a better listener and observe what the student was feeling. She continued preparing for her class while the student talked.

Nadia says she did not have a strong reaction to what the student was telling her because she had faced these kinds of situations before. "The emotions were minor for me," she said, "only because I've dealt with [them] so much." Even in highly anxiety-inducing situations, the intense emotions Nadia and Marco may have felt at first diminished over time, eventually eliciting a more neutral response.

Sensitivity to subtle stimuli by reading others' moods and body language. Noticing details and being more responsive to others' moods (Acevedo et al., 2014) is another key characteristic of SPS. Three of the teachers referenced this ability explicitly. Lauren said that having this skill is very useful as a teacher. She described a situation in which a colleague was frustrated with a mandate over which teachers had little control and had been venting about it. Several school leaders were discussing the way the teacher reacted, though Lauren felt like she

could read the situation differently. She said she made an effort to help the school leaders better understand what was going on with her colleague:

I said, “You guys have it all wrong. She isn’t trying to make your life hard. She wasn’t trying to say, ‘Here’s a problem. Fix it’ What she wanted you to do was acknowledge that it caused her stress...and you guys didn’t do that.” They both look at me with mouths open, but I was watching this woman and it was clear what was going on.

She went on to say that she could tell how agitated her colleague was and how important it was for the others in the situation to recognize that. Being able to sense others’ moods is a skill that Lauren has utilized both in and out of the classroom and that provides her with an understanding of the way people are feeling, sometimes in a way that others cannot.

For Nadia, noticing details and responding to them was something she said she had been doing for a long time and was integral to her daily teaching practice. She called it reading behavior or reading body language and said that it was her biggest asset as an educator. She depicted the constant assessment and gathering of details she does when students enter her classroom:

I don’t know why I [assess body language]. I do it subconsciously almost. It’s something I’ve always done, so it didn’t start with teaching. When students walk in the door, when they walk by me, or when they look at me, when they respond to me, when they say hello, I’m hearing the tone of their voice, the volume of their voice, where their eyes are going, where their head is going, how their body is slouched. I’m just taking that all in and I get a very quick gut feel for what their energy level is like, how much they’re going to be able to tolerate that day.

She acknowledged that assessing body language is sometimes coupled with what they say—“Oh, we gotta read? I don’t want to do that”—but that she reads their energy level and the extent to which they feel up to participating in the day’s lesson. Body language is a common social cue, and not always subtle, but the detail and consistency with which Nadia assesses the body language of her students is noteworthy. She said that she makes adjustments to the day’s lesson based on what she reads in her students and how much they can “tolerate” that day, using her sensitivity to their body language to meet their emotional needs and help them be more successful in her class.

In contrast to other participants, Anna indicated that sensitivity to others’ moods was something she typically did well as a teacher but had not done well in her personal life, at least in one crucial instance. She said that she “can always tell how people are feeling” and that being able to pick up on stuff like that is “one of the reasons why my students kind of gravitate toward me.” She explained, though, that her intuition for how other people are feeling has not always come through for her. Her nephew, who had been living with her, committed suicide several years prior, and the realization that she did not know he was suffering made her question her ability to know how her students were feeling:

That was a life-changing moment for me because as an educator, I’m supposed to see those signs and I’m supposed to be able to figure out how they’re feeling. I’m supposed to be able to help them, and I can’t even help this boy that lives with me. How am I supposed to help these one hundred kids that come into my care every single year? How?

For Anna, being able to read others’ emotions was simultaneously a point of pride as a teacher and a tragic letdown when she felt she did not do it successfully.

Susceptibility to overstimulation contributes to fatigue and agitation. For many people with SPS, overstimulation is a genuine risk for exhaustion or irritability and they therefore seek out more downtime and time alone (Aron, 1996; Evers et al., 2008). Three of the seven teachers referenced ways that they have either experienced overstimulation on a regular basis or actively tried to prevent it. Will, a high school visual and performing arts teacher, coordinated his entire life around managing his energy. If he does not do this well, “It actually has a physical effect. You actually physically feel tired and it’s a real mental tiredness, emotional tiredness,” he said. Will described himself as a quiet, introverted person. He said he spends time with his wife outside of work but does not seek much interaction beyond that. Although Will spends his day with students, he felt that the energy it takes to teach them was challenging and mentioned the potential physical fatigue multiple times. After seeing the description of SPS, he said that the number of people he can interact with is “very particular.” For him, managing the energy it takes to be a teacher was both significant to his wellbeing and something that needs careful attention each day.

Nadia also felt that teaching caused her physical fatigue, saying that figuring out which demands to prioritize were “literally tiring.” In her journal, she wrote that having too much to process was difficult. “The more questions, comments, et cetera, the more difficult it becomes for me to process my thoughts and remain in control. If I get overwhelmed, I begin to feel emotions such as agitation [and] anger.” When she reviewed the description of SPS at the end of the interview, she made a connection to her experiences and said, “You realize that when you’re really spending your energy subconsciously or consciously in that way, it is tiring. It’s draining.” Overstimulation caused a noticeable physical and emotional response in Nadia that showed strong evidence of alignment with SPS.

Similarly, Lauren expressed that she experiences agitation when she is over-stimulated or asked to do too much. In reference to chaotic situations, she said, “If things are happening and I don’t have control over it and I keep getting interrupted over and over again and I don’t have time to recover, I get very frustrated. I definitely shut down.” She also says that she is introverted in social situations and that being asked to interact with people she does not know is nerve-wracking. In reference to seminars or workshops with other teachers, she said, “It’s where you have to go find somebody else you don’t know that causes me a lot of stress...I’m comfortable in my little world here.” She acknowledges that she will not grow if she does not “get over it,” but that it can be challenging. For several of these teachers, the risk of overstimulation is something that has to be confronted and managed to prevent it from creating a negative response.

Teachers Identify Competing Time Demands and Colleagues as Top Sources of Stress

In their journals and during their interviews, all of the participants referenced events and situations at work that caused them stress. The two most common stressors stemmed from increased demands and professional relationships. Six of the seven interviewees felt that a high number of demands placed upon them caused frustration and drained their energy. These demands were often requests or initiatives from multiple levels of the school community—the school, the district, or the education system at large. Another five of seven teachers relayed at least one instance of a stressful interaction with a colleague or school leader. These interactions ranged from feeling undermined by administrators to feeling disrespected by their colleagues.

Energy demands. Six of the seven participants cited multiple demands on their time and attention as their primary source of stress. For several teachers, these demands stemmed from being teacher-leaders in their school. Teacher-leaders in particular felt that multiple demands caused them a great deal of stress and cost them a lot of energy. Will shared that meetings for his

school's instructional leadership team were too frequent and eventually had a physical effect on him. "I think sometimes we have too many meetings about everything," he said, "and there may be a little too much micromanagement." He also struggled with the content of the meetings, which he said focused on the core subjects and therefore were not applicable to him as an arts elective teacher. Attending those meetings made him feel "very depressed because they were speaking a language that did not relate to me and that really drained my energy and it really made me literally depressed after every meeting."

Even teachers who were not in leadership roles felt the pressure of being asked to do too much. Marco, during his first year of teaching, felt the demands of the "new job, new tasks, new responsibilities...that was just too much for me. I told my principal [recently] that that first year I didn't get too much sleep." While these concerns are typical of anyone in a new job, and are especially typical of a first-year teacher, Marco stated that, even recently, he has many days when demand is so high that he does not have time for his normal tasks:

Those kind of days are tough because those are the days where I usually have an IEP [Individualized Education Plan] meeting or staff meetings and that gives me very little time to eat, to grade, and to just do what I normally do here by myself in the classroom. Typically, my conference period is taken away.

When he has those kinds of days, he said, he wants to go home as soon as possible and take a break. Teachers faced significant demands on their time that impacted their motivation and had an effect on their work-life balance. The stressors this group of teachers faced may not be distinct from the stressors experienced by the general population of K-12 teachers, but the toll they take on teachers who have SPS may be stronger, as suggested by the depression Will started to feel and the need to escape that Marco described.

Interpersonal Relationships. The second major stressor for teachers was interpersonal relationships with colleagues, including school leaders. Teachers described scenarios in which they felt disrespected or when colleagues did not provide moral support. In one case, a teacher felt concerned about how some of the teachers at her school had treated students. Lauren said that she gets very frustrated when colleagues do not admit a mistake or will not diffuse confrontations with students, saying that choosing to do so is actually valuable to students and creates a connection with them. She went on to say that the “what I say goes” attitude of some of her colleagues really annoyed her.

For most teachers, though, challenging situations typically stemmed from a lack of collaboration with or support from their colleagues, which weighed heavily on them. Anna described an experience where her expectations of working in a highly collaborative group of colleagues fell short, and her recognition about the true nature of her colleagues’ willingness to collaborate added to her stress levels:

I came in with the frame of mind that it was just going to be the best in the world and we had all these new teachers and they’re going to be innovative and they’re going to be collaborators. And then when the school year started and I realized that that’s not what was happening, it was really difficult for me.

Anna’s approach was that collaboration made the workload easier because she and her colleagues could share the task of gathering resources and bring new ideas to one another. The lack of collaboration with her colleagues was more than routine disappointment for her. She also mentioned that some of her colleagues attribute her students’ successful outcomes to them being “different” rather than because she’s an effective teacher. “It’s really frustrating because I put in a lot of time and I put in a lot of effort,” she said, “and for you to make it seem like it’s something

that it's not, it's really upsetting.” She took her colleagues’ lack of acknowledgment that her teaching ability may be contributing to her students’ success as a personal affront that exacerbated the gap in collaboration.

Nadia similarly explained that the disrespect she sensed from colleagues during a meeting represented one of her most stressful work experiences. Nadia expected more professional behavior from her colleagues, saying, “I understand that people are going to be a little off-task. That as adult learners, we multi-task and that's normal. So, it wasn't so much that.” She added, “It was the downright rudeness and disrespect. Just showing up when you felt like it or not following directions. And [I just felt like], ‘Why am I up here doing this?...You're an adult.’” Nadia said she felt angry and frustrated after the experience and had to go home to take an extended break, not thinking about work for a solid day, and the next step was to refocus her energy so that she was not so angry. Although showing up late or talking during a workshop are not abnormal in many settings, Nadia’s colleagues’ behavior was a significant source of stress that required time to regroup. For both Anna and Nadia, what may be considered slight annoyances or disappointments for teachers without SPS were much more significant to them. Similar to Nadia, Anna’s conclusion about the new teachers being rude to her during her new teacher orientation presentation was that she “didn’t want to deal with [them] at all.”

Marco, when describing the situations that caused him stress, honed in on two ways in which he felt a lack of support from colleagues, which in his case were his school leaders. During his first few years of teaching, as he continued to practice his classroom management, he said he felt undermined by administrators who sent students back to his classroom whom he had previously referred for misbehavior. He said that his administrators told him that if he were to refer a student and the student came back, he could not send the student out of the classroom

again. “I thought, Seriously? This is all you guys can do for me? So that got to be extremely, extremely frustrating because I felt powerless.” Sending students back to class after being sent out by the teacher is a fairly common practice and would likely frustrate any new teacher, but the extent to which it bothered Marco, to the point that he felt extreme frustration and powerlessness, may be representative of how teachers with SPS would react to that situation with stronger intensity than teachers without SPS.

Routines of Time Management, Adequate Preparation, Flexibility, and Recuperation Help Teachers with Sensory-Processing Sensitivity Manage Their Workday

Participants described the overall demands on their energy and the challenges with interpersonal relationships as stressful and draining. The qualitative data uncovered two types of coping strategies: routine and systematic. Routine coping strategies were approaches to the work that were used daily both inside and outside the classroom to effectively manage the workload. Systematic strategies were approaches that teachers had sustained over time and that helped them reestablish their commitment to the profession. This section discusses the daily coping strategies teachers used, which were time management, preparation, recuperation, and flexibility. These strategies helped teachers feel more efficient and successful in the classroom.

Prioritization. All of the teachers said that prioritization was a crucial strategy that they employed when they felt the demand was getting too high. Some interviewees focused on the locus of control associated with each task or responsibility when strategizing how best to allocate their time to meet competing deadlines. For example, Will noted that teachers needed to protect their time commitments as a way to conserve their energy. As Will explained, “You have to be careful about managing that, trying to pick your battles and figure out what you can tolerate and what you can’t, where you can cut back to save your energy, especially as you get older.”

Because he was struggling with the irrelevant instructional leadership team meetings at his school, Will decided to stop going and immediately felt better and more energetic.

Other participants prioritized their work with two criteria in mind: immediacy of deadline and responsiveness or connectedness to students' needs, which Lauren described as a "triage" approach in her journal. She also shared that she purposely avoids any tasks that do not put her directly in contact with students because she feels that she is not at the school for anything but that. Nadia said she prioritizes based on a personal assessment of the importance of pending deadlines and tasks. Organizing and being strategic was key to accomplishing multiple tasks with competing urgency.

Preparation. All of the teachers mentioned preparation as a crucial daily coping strategy for managing their workday. Many teachers in the general population use preparation to mitigate feelings of uncertainty about what they are going to teach on any given day, but among this group of teachers, preparation was attended to in greater detail than their peers. Marco had to prepare for an evaluation this past year, which consisted of a formal classroom observation. He said that he was particularly focused on it because he had failed his previous evaluation, but even so, he said, he chose to plan for the observation in a way that other teachers in the same situation did not:

I met with one of the coaches here at the school. I practiced more at home than usual. I took in more notes. I even attended voluntary district meeting for first year teachers. I'm a third year teacher, but I went to that meeting anyway just to get as much as I could.

Marco indicated that he went above and beyond when it came to planning for the observation, regardless of what had happened in his previous evaluation. He believed that the situation caused him more stress than his peers and was surprised when he went to the meeting and the teachers

around him seemed nonplussed by the situation. “A lot of them just didn’t seem worried,” he said. “Me, I was shaking underneath...I did feel like it was very different for me than for other teachers.” A formal observation can be a very stressful situation, but the extent to which Marco prepared for and thought about his upcoming observation aligns with the conscientiousness and deliberateness of people with SPS.

When referring to her consistently positive attitude at work, Anna said that she takes the responsibility of teaching other people’s children very seriously and indicated that she puts more effort into her planning than other teachers at her school. She said, “I have students that might ditch next door, but they're going to come to my class because they know they don't want to disappoint me and they know that I planned something and I spent a lot of time and energy on it and they want to learn what I'm teaching.” From Anna’s perspective, her dedication to preparing high-quality lessons was noticeable to her students to the point that her class stood out as different from other classes. She also saw it as an important part of her daily stress management: “When I’m prepared, that makes me feel the least amount of stress.” For both Marco and Anna, meticulous preparation was an essential strategy for coping with the expectations they felt to do well in their jobs.

Recuperation. All of the teachers mentioned time for recuperation as a routine strategy for coping with stress. Many of their approaches were common among the greater teaching population, such as spending time with loved ones, exercising, or talking about challenges with colleagues (Rieg et al., 2007). For three of the teachers, recuperation was likened to a withdrawal or escape. Lauren described it as needing to retreat when others notice that she seems stressed, though she admitted that this does not happen very often. For Will, though, recuperation was not something he did when he found time; rather, it was something around which he structured his

entire day. His strategy directly combatted the energy demands of teaching he found particularly stressful:

Every minute of my day outside of school is taken up by something interesting to me or important to me. I make sure to give myself plenty of time to do stuff that I like. I have a very unusual schedule. I like to get to bed and be sleeping by 6:30 at night because I get up at 3:30 in the morning. The reason I get up at 3:30 in the morning is because I like to either run, or do yoga, or do some weightlifting, some calisthenics. I do that just about every day.

Will also stated that he purposely limits his social interactions: “Honestly, I don't spend a lot of time or cultivate a lot of friendships outside of school, and I'm very comfortable with that.” He mentioned several times that that as a teacher, “you have to manage your energy, and then you'll go a lot further, faster.” Being very deliberate and structured about how he spent his time outside of work as well as limiting his social interactions helped Will feel more capable of meeting the demands of the profession.

Marshall also placed a strong emphasis on the value of his time outside of work, engaging in a self-imposed isolation that pointed to an extreme form of recuperation. “I don't have a family,” he said. “My kids are all grown up. It's just me and my birds. I have 15 birds and a few aviaries. That's where I spend most of my time, and the church. I help out in the church in Compton, and I go to nursing homes on Sundays.” In addition, Marshall described himself as very private and said he considers himself a monk who “lives in a monastery without walls.” By choice, Marshall does not seek out friendships or attach to people, dedicating his personal and professional life to helping others. In terms of recuperation, every teacher articulated at least one way that they relied on their personal interests or loved ones to mediate the effects of work

stress, but some pursued recuperation as a much more insular endeavor, spending most of their time outside of work with very few people.

Flexibility. Six of the seven teachers indicated that adapting to situations or just “rolling with it” was a useful day-to-day strategy. The seventh teacher, Marco, was the newest teacher to the profession in his third year of teaching. For the remaining six interviewees, participants described how they learned to disregard issues they once considered to be considerably stressful and instead began to view such circumstances as routine and expected. Such a shift enabled participants to overcome some of the daily stressors they encountered at work. For example, Jonathan described how he used to get upset when an administrator would reverse a policy after he had served as “gatekeeper” to uphold the policy, but said that now those situations “wash over [him] like nothing.”

Similarly, Lauren said that technology failures are a big source of stress for her because, as a Special Education teacher, she has to file paperwork for students documenting their services, and failures sometimes occur when she is on a deadline. She said that she reminds herself that she did her best and that she has documentation to show she tried. Beyond that, she said, she cannot do much else. Lauren also described how she had to adapt to a significant change in a class after the focal test was eliminated and she needed to replace test preparation with other content. In reference to that challenge as well as others she has faced, she said that she “just had to learn to sit down and get used to the new normal and just go with it.”

This increased flexibility extended to the environment and the people in it, which Nadia mentioned multiple times as something that causes her to adapt. Dependent on what is or is not acceptable around her, Nadia adjusts to it and behaves accordingly:

One of my core values is you have to put on masks. I would love to walk around the world being whoever I want, whenever I want, wherever I want. But, that just causes friction. You have to be able code switch. You have to be able to know when something is acceptable or unacceptable to get along. That's what I've learned to do. In all honesty, it's probably made me a better, more flexible parent, educator, all of that. I don't resent it.

While she knows herself well and is not afraid to express what she is thinking or how she is feeling, Nadia “code switches” to match her environment. She also applies this approach to her planning, saying that she plans with the expectation that something will change. Participants consistently recognized that building flexibility and room for error into their daily work plans helped to alleviate their stress and enabled them to become more comfortable with unexpected or frustrating events. One teacher did not mention flexibility, but for the remaining six teachers, adapting to unexpected situations or accepting many things as they emerged was an important strategy for managing the demands of the classroom.

Commitment to Students, Reflective Practice, and Collegueship Re-Center and Reenergize Teachers

In addition to daily coping strategies, teachers drew on more long-term, systematic strategies to persist in the teaching profession. Commitment to their students, engaging in reflective practice, and having positive relationships at school contributed to every participant’s ability to sustain their energy levels and remain in the profession. This section will illustrate the ways these teachers utilized these strategies to support positive outlooks on their work as teachers.

Commitment to Students. All of the teachers discussed their commitment to their students as a primary driver for being a teacher, and returning to this touchstone also seemed to

represent a strategy to counteract factors contributing to an elevated risk of burnout. For example, Anna described the amazement she experiences when she sees her students growing academically. Despite her elevated stress associated with colleagues who fail to follow through on their commitments and feeling overwhelmed by other stimuli such as others' body language, Anna relied on her dedication to her students and commitment to supporting them as a way to overcome such challenges. Anna explained:

It's knowing that you have these children's futures in your hands and you have to make the best of the situation. It's really hard because you know if you fail them, you're setting them up for failure not just for this year but for the years to come also, so it's huge.

Anna's drive as a teacher revolved around her students' outcomes and whether they were academically successful; her goal was to represent a reliable source of information to her students, and this focus helped her to move past many of her day-to-day frustrations with her work and her colleagues.

Similarly, Will said that his number one priority as a teacher is the students in his classroom because "that's who we're trying to help." As a visual arts teacher, Will feels inspired by the ways art benefits his students, which helped combat the physical fatigue and feelings of frustration he felt with the job's many demands. It also helped him recover from a "boredom" rut after his first few years of teaching. He said:

[Art] is more intuitive. It's more spatial, dealing with a different part of learning, which I think is super important because [students] need that. We always talk about addressing the whole child and teaching the whole child, and that's what we do.

By focusing on the ways art helped his students develop skills they otherwise would not have, Will felt more fulfillment in the profession and was able to overcome a period time when he

simply felt checked out. Over the course of the school year, he said, the class comes together and feels wholly connected: “One of the great things about teaching is at the beginning, we're all strangers to each other. By the end, we're like this big family and we've built these skills together.” Will’s commitment to students centered on their progress in their art skills and the development of relationships in the classroom, which reenergized him each year and gave him something to look forward to. Marshall summed up how his commitment to students defines his life’s purpose: “If I cannot help anyone, if I cannot help the kid who's in need, then I'm a slave of the world.” The teachers expressed a great sense of devotion to their students that made the challenges worthwhile.

Engaging in reflective practice. With their commitment to educating students as a touchstone that reenergized them during demanding situations at work, teachers participating in the interviews described their use of reflective practice as a strategy to overcome frustrations at work. Some teachers explained this self-reflection happening while they teach. For example, Lauren mentioned that she reflects on her lessons regularly. She shared that she has stopped a lesson on multiple occasions because it was not going well, asking herself and her students reflective questions about what was going on and why it was not working. After reflecting, she would “file [it] away in my mind and then if something starts up again somewhere else and I get signals, I’m reminded of that and sometimes I try to do things a little bit differently and try another script.” She continued by emphasizing that she also learns from things if they go smoothly: “I think you have to debrief things that go really, really well as much as things that don’t go well. ‘Wow, that went really well. Why did it go so well?’” Engaging in a sequence of contemplation and self-assessment was how Lauren made meaning of challenges at work in order to move past them.

Nadia's reflective practice emerged when she described how her teaching has changed over time. She said she has changed "leaps and bounds" from lecturing and unstructured conversations to more student-centered instruction. For her, continually seeking out and trying new strategies "keeps [teaching] from getting stale." Recently, when she realized that her students' essays had become rote and uniform, she began rethinking her writing instruction. "I implement a strategy and then I have to figure out how to make that strategy work better," she said. "There's a lot of potential for thoughts and growth in that." Nadia said that reflecting on her instruction and making improvements made the work sustainable for her because when things become too stagnant, she gets irritated and starts to feel negative about her work. For all of the teachers, reflecting on their successes and challenges was a significant part of their role as teachers and brought them a sense of accomplishment.

Positive school-based relationships. Participants emphasized the role of workplace context in managing stress levels and improving their efficacy in the classroom. All of the teachers expressed the benefit of positive school relationships as a notable component of their professional success. Several participants, including Jonathan, described their context in the form of relationships with supervisors. Jonathan described reciprocating loyalty with his superiors, and he added, "When you have a good connection with your immediate supervisor...you can anticipate moves when you're in that same direction—just stronger when the group is in the same direction." He acknowledged, though, that his history of displacement challenges the authenticity of some of his relationships. Jonathan explains his newfound reluctance to register his disagreement with administrators' decisions, saying, "However [they] want to do it. I'm not going to get involved in that. And maybe in the past, I probably would have vocalized how that doesn't sit well with me and what have you. I'm not going to do that [anymore]." He said that he

wants to fit what the school needs and not come across as “uncoachable.” Regardless of the extent to which Jonathan perceives his relationships with his supervisors as authentic, though, he feels strongly about the importance of maintaining peace as a strategy to minimize stress and frustration at work.

Nadia felt that the most positive relationship she could have with her administrator was being given well-intentioned opportunities to grow. Before coming to her current school, she stated that she had never had an administrator who made growth and improvement a positive aspiration. Previous administrators had made that situation stressful and counterproductive, she shared. Her current administrator, though, made her feel empowered:

[She] wasn’t questioning me or giving me a hard time about why I was not at this level...Instead, she saw an opportunity for me to grow...It’s never been a negative to know how to do something here. It’s been seen and talked about as an opportunity to advance.”

Establishing and maintaining positive relationships also emerged as a critical strategy for other participants, but they seemed to focus their efforts on cultivating bonds with colleagues. Marco described a select group of colleagues as a key source of support, providing him with professional advice and demonstrating their investment in his success through unsolicited classroom check-ins. This group has become so central to Marco’s work that he eats lunch with them almost every day:

We tend to just talk about our days, who’s giving us trouble, how we’ve tackled those problems, and it’s amazing how one person brings up [an issue] in one classroom and everyone else says, ‘That happens in our classroom,’ and then we’ll say what has worked—just a very supportive group.

Marco further explained that this group prevented him from leaving the profession. During his first year of teaching, he asked himself many times why he left his previous job in a different field to become a teacher. “Easily one of the most stressful years of my life,” he said. “But thankfully, I had a lot of support... I knew I wasn’t alone, and that helped me.” Marco’s collegueship reinforces the idea that others share in his struggles and frustrations and indicated that their camaraderie was the most important factor in his decision to stay in the profession after his first year.

Lauren, when expressing the importance of building relationships, described a paradigm of being receptive to others’ needs and being forgiving when conflicts or misunderstandings arise:

I remember once we had a workshop or whatever and the subject was vulnerability and I think people mistake—I don’t think they think that word means what they think it does, and it’s not about weakness. It is about being a little more open and it is about accepting that the other person, whether it’s a teenager or another adult, has some needs that are not being met and maybe they just have the same need.

For her, connecting with other people is accepting what they are experiencing and making an effort to meet their needs. This approach allows her to build positive relationships with her colleagues that make the workload more tolerable and manageable.

Teachers Express Greater Self-Awareness and Appreciation for Sensitivity after Learning of the Study’s Purpose

At the end of each interview, participants received an information sheet about SPS (see Appendix F) and had a chance to share their reactions and thoughts. The revelation led six of the teachers to show a greater self-awareness and self-appreciation that prompted their cognitive

appraisal of and appreciation for sensitivity. For one teacher, the description did not feel accurate. Marco, before receiving the description, said he sometimes feels different from other teachers when demand is high, but when he read the information about SPS, he said, “I can somewhat identify with this, but as far as truly resonating with it, I honestly don’t think so.” For the remaining teachers, the description of SPS was meaningful and appropriate. When Lauren read the description of people with SPS as “remarkably reflective,” she laughed and said, “We talked about that.”

Anna gained insight into some of the ways other people have described her when she read about SPS. During her interview, she stated that her husband has told her that she “thinks differently” and that her reactions to many events are not typical. After reading about SPS, she repeated several times that it was interesting and that she can always tell how people are feeling. The characteristic of being susceptible to overstimulation did not ring true for her, but she identified particularly with feeling strong empathy, attending to group morale, and being deliberate. Anna explained that she has often received feedback about the way she interprets events, an indication that her cognitive appraisal stands out from those around her, and closed the interview with an acknowledgement that her sensitivity could be a strength. “Everybody's always like, ‘Why do you think like that?’ I'm like, ‘I don't know. It's a little different.’ ...But I'm okay with it.”

Even though he exemplified only one characteristic prominently during the interview, Jonathan said that 80-90% of the description characterized him, and he said that reading the description was striking: “It kind of hits you in the face. Sometimes when you’re unaware of how you’re presenting yourself and then you see it, it’s jarring but interesting.” He added that the revelation helped him crystallize a lot of things he had been thinking about for a while and that

he wanted time to process the information. For him, the discovery was facing something about himself that he had not known or acknowledged before, likening the moment to a breakthrough in a counseling session: “There would be moments [in counseling] where someone confronted you with a truth that maybe you buried or you never really realized. It would be very impactful, so I’m trying to take it in.” Learning about the trait brought about a significant moment of clarity and self-understanding for Jonathan.

The revelation about SPS helped several of the teachers not only understand themselves better but also understand people close to them better. Anna reflected back to her experience with her nephew’s death and shared that she believes that he was also highly sensitive because of some of the characteristics he displayed. She described how he could read her moods correctly and would reach out to support her through some very difficult times, even without knowing whether something was actually wrong, which made Anna wonder about the role of genetics in the trait. Her cognitive appraisal of the loss of her nephew was informed by a connection of which she was not entirely aware, and the way Anna evaluated that event had changed. The way she responds to others in the future will also likely be different or at the very least influenced by her knowledge of SPS.

For Nadia, the revelation was “mind blowing.” She acknowledged that something that always felt different to her was constantly feeling physically tired and not knowing why. The description of SPS was very recognizable to her: “This ridiculously describes me,” she said. She went on to say that she was amazed that after spending her entire life trying to understand something about herself, this information came her way. The most valuable part of it, she said, is that she recognizes the trait in her daughter and can help her understand it better. “How cool would it be to say, ‘You feel and you see a lot,’ and help her to shape that as a positive thing

before she even hits her teenage years? How cool is that?” The participants’ reactions to SPS brought out one of the most valuable features in highly sensitive people: a remarkable empathy and responsiveness to the needs of others.

The qualitative data revealed the personalities, challenges, and successes of this group of teachers. They exemplified the complexity of people with SPS who process on a deep level and who have unknowingly found ways to highlight or moderate their tendencies. In Chapter Six, I discuss the implications of the quantitative and qualitative findings and make recommendations for how teachers and school leaders can respond to them for the benefit of their students and school communities.

CHAPTER SIX: DISCUSSION

Introduction

This study emerged from my own experiences as a classroom teacher and from my passion for supporting teachers in the field. I sought to uncover the potential intersection between teacher burnout and the temperament trait of Sensory-Processing Sensitivity (SPS), focusing on sensitivity in particular because of how much our society generally undervalues its worth despite how valuable it can be in the teaching profession. I was very interested in analyzing the potential impact of SPS on burnout and stress, and I also wanted to explore how teachers who were likely to present with the trait managed their workday and found sustainability in the profession. I was also interested in teachers' experiences in the classroom, how they made meaning of those experiences, and whether SPS played a significant role in that interpretation. After conducting a survey with urban teachers, I identified a subgroup of teachers who had high scores on the Highly Sensitive Person Scale (1996) and engaged them in journal writing and one-on-one interviews to further understand the ways SPS may or may not have impacted their professional experiences. As I detailed in Chapter Three, I analyzed the quantitative data using cross-tabulations, correlations, and multiple regression models, and then used multiple rounds of deductive coding to analyze the qualitative data.

The analysis of data revealed several key findings. Analyses of the quantitative data revealed that SPS significantly and positively correlated with risk of burnout, but stress fully mediated this relationship when introduced into the model. Teachers at increased risk of presenting with SPS tended to have a greater risk of burning out due to emotional exhaustion and reported experiencing more stress at work. SPS and self-efficacy did not have a statistically significant relationship.

Analyses of the qualitative data revealed five overarching themes. All seven interviewees displayed at least one characteristic of SPS and all but one of the teachers felt that the description of SPS resonated with them. Second, teachers identified competing time demands and colleagues as their top sources of stress, which compromised their physical and emotional energy. To overcome their stress, teachers used both daily strategies and systematic strategies to manage the demands of the profession. Lastly, teachers exhibited a greater sense of self-awareness and seemed to experience a shift in cognitive appraisal related to how they perceived themselves after they learned about the underlying focus of the study. In this chapter, I discuss the implications of these findings, present the value of the findings for various stakeholders, and detail some of the limitations of the study. I also make suggestions for further study and share my concluding thoughts.

Discussion of Results

Causes of Teachers' Professional Stressors

Teacher attrition is a significant barrier to schools seeking to maintain quality and consistency in their faculty, particularly in underserved areas where student needs are greatest and attrition is highest (Barnes et al., 2007; Guin, 2004; Ronfeldt et al., 2015; Simon & Johnson, 2006). The literature has historically identified low compensation and a desire to work with a different population of students as the primary reasons for teacher attrition in urban areas, though more recent studies show that teachers leave high needs schools primarily because of the school environment and a lack of collegial support (Guin, 2004; Simon & Johnson, 2013). This study uncovered similar findings. All of the interviewed teachers, when describing factors at work that caused them stress, mentioned interactions or relationships with colleagues or school leaders. Teachers cited a lack of collaboration, a lack of support with classroom management, and

personal disregard in team settings as major stressors, while referencing positive relationships at school as a crucial factor in their success and happiness. Further aligning with the recent literature, all of the interviewed teachers expressed a strong commitment to their particular student population. Will said, “I feel like I’m contributing more because I’m serving an underserved population, and I find that really gratifying.” The students with whom these teachers worked, rather than discouraging them from the classroom, was the very reason teachers wanted to be there.

According to the literature, another source of stress for teachers is their workload, or the demands on their energy and time (Froeschle & Crews, 2010; Harris, 2011; Kyriacou, 2001; Murray-Harvey et al., 2000; Rieg et al., 2007; Roeser et al., 2013). This was also true for the teachers I interviewed. Every interviewee talked about the multiple demands they faced at work, a sentiment that transcended teacher demographics like years of experience, age, and whether or not they were working in a teacher-leader role. From Marco, who sometimes had to skip lunch to complete his daily tasks, to Will, who had to stop attending instructional leadership meeting to mitigate feelings of exhaustion and depression, to Nadia, who wrote in her journal that what began as an exciting and highly motivating time at the beginning of the school year quickly became an energy drain because of the endless meetings and tasks, the amount of work required of these teachers challenged and depleted their physical and emotional stamina. These scenarios, played out over time, is what leads to burnout.

The stressors identified by teachers during the interviews aligned with the Teacher Stress Inventory (1984) in terms of workload but differed in terms of interpersonal relationships. Indicators related to having too many commitments and having to take work home had some of the highest average scores in the survey, indicating higher levels of stress because of those

factors. However, the remaining indicators with high averages related to a lack of opportunities to learn from colleagues, a lack of recognition, and not having opportunities to voice opinions. The indicators assessing collegial relationships had much lower average scores among respondents, meaning they were not causing teachers as much stress according to the data collected through the survey.

That interpersonal relationships and workload are strong contributors to teachers' stress levels are significant findings for leaders of high needs schools facing high teacher attrition. Offering higher compensation, signing bonuses, or isolated mentor programs (Smith & Ingersoll, 2004) are not enough to keep teachers in the classroom; schools must intentionally build strong school communities where teachers feel supported by their peers and leaders. Nadia and Marco both referenced this type of support when they described administrators whose focus on growth and coaching made professional learning and evaluation a less stressful, more constructive process. Simon and Johnson (2013) and Guin (2010) point out the cycle of mistrust that occurs when teacher turnover is high, which inevitably leads teachers to seek out more cohesive school communities. Essentially, to remain in the profession at a high needs school, teachers need to feel a sense of commitment to each other as well as to their students.

Sensory-Processing Sensitivity and Stress Exacerbate Burnout While Self-Efficacy

Mitigates Burnout

Multiple studies have found that prolonged exposure to professional stressors negatively impacts teachers' wellbeing and self-efficacy, exacerbating their dissatisfaction and contributing to potential burnout (Brown & Nagel, 2004; Brouwers & Tomic, 2000; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2007; Schwarzer & Hallum, 2008). The literature also suggests that a person's affective state has a direct impact on their sense of self-efficacy, which in turn affects

work performance and satisfaction (Bakker & Moulding, 2012; Evers et al., 2008). The findings in this study support those conclusions; SPS had a statistically significant, positive relationship with burnout risk, suggesting that teachers with greater propensity of presenting with the high sensitivity trait may have a greater likelihood of experiencing burnout. This relationship, however, appears to operate entirely through stress. In other words, teachers more likely to present with SPS also reported experiencing greater stress at work, and increased stress levels correlated with an elevated burnout risk.

The Role of Sensory-Processing Sensitivity. Participants' raw SPS scores had a significant, positive correlation with stress. Because the qualitative phase only interviewed teachers who scored in the top 20% on the SPS scale, I was unable to explore the relationship between SPS and stress through my interview data. Among the entire sample population, though, teachers who were more likely to present with characteristics of SPS also reported elevated stress levels with respect to work.

Teachers with greater sensitivity also had increased risks of emotional exhaustion. Aron (1996) writes that people who have SPS are more in tune with both their own emotions and the emotions of others; therefore, the correlation between SPS and emotional exhaustion is logical. A high level of empathy along with the deep processing of stimuli makes it reasonable that a teacher who demonstrates characteristics of SPS also experiences more intense fatigue or frequently feeling drained because of interpersonal interactions, which are constant features of being a classroom teacher. The fact that teachers who have higher SPS scores may also have higher stress scores and higher risk of emotional exhaustion indicates that SPS, in terms of teacher burnout, is worth considering as a focus for teacher support. In other words, by

addressing and accommodating SPS, leaders have an opportunity to reduce stress and feelings of emotional exhaustion among teachers presenting with the trait.

The Role of Self-Efficacy. The data revealed that teachers with greater confidence in their teaching abilities tended to have significantly less risk of burnout. A negative relationship emerged between both self-efficacy and burnout and between self-efficacy and stress. When burnout was broken down by its constructs of emotional exhaustion, depersonalization, and personal accomplishment, self-efficacy had statistically significant relationships with each—negative with emotional exhaustion and depersonalization and positive with personal accomplishment. This finding aligns with Brouwers and Tomic (2004), who concluded that as self-efficacy increased, personal accomplishment increased and depersonalization decreased. Alarcon et al. (2009) found a positive correlation between self-efficacy and personal accomplishment as well, and in a meta-analysis of the relationship between self-efficacy and burnout, Brown (2012) found that a negative relationship between self-efficacy and burnout existed in all 11 of the reviewed studies. In 10 of the studies, a negative relationship existed between self-efficacy and emotional exhaustion, which this study found as well. Viewing the association of each construct with self-efficacy independently provides more specific information to identify what teachers are experiencing, thereby providing opportunities for targeted solutions that better meet their needs.

Self-Efficacy and Stress. A negative significant relationship existed between self-efficacy and stress, which aligns with the findings of several previous studies (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2007, 2011, 2016; Vaezi & Fallah, 2011). Skaalvik and Skaalvik (2016) found that time pressure or workload strongly increased emotional stress, which teachers

in this population conveyed during their interviews. If these factors can be addressed, teacher stress and the resulting challenges teachers face can potentially be mitigated.

A correlation between SPS and self-efficacy did not emerge from the data, aligning with the finding of Evers et al. (2008) when looking at the scale as a whole, though Evers et al. (2008) did find correlations when they broke the SPS scale into subscales based on the work of Smolewska, McCabe, and Woody (2006). The lack of relationship between SPS and self-efficacy warrants further investigation since teachers with SPS are notably conscientiousness and reflective about their work. While these traits do not necessarily translate to a greater sense of confidence in one's teaching ability, the lack of relationship found in this study may be due to the limited questions on the survey, which only pertained to self-efficacy in terms of student learning. The particular measure of self-efficacy in relation to student learning may be less influenced by SPS than by other factors like teacher-student relationships, classroom culture, or collaboration with colleagues. The interaction between SPS and self-efficacy is explored in Figure 6.1, which explores the potential responses of a teacher whose colleague did not show up for a scheduled peer visit based on the high or low presence of SPS and a high or low sense of self-efficacy.

The lack of correlation between SPS and self-efficacy also raises questions about when in the cognitive process they occur most profoundly. I posit that SPS may be most important during cognitive appraisal, or the mental assessment and interpretation of events, while self-efficacy may be most important during the development of the coping strategies teachers use to manage their workday and return to the classroom each year. Stress may be present when a teacher's cognitive appraisal, largely influenced by SPS, is negative. After interpreting the event, stress may occur if there is a breakdown in their ability to cope and decide how to respond to the

stressful situation. This distinction was most recognizable in the coping skills of Anna, who had a high sense of self-efficacy, and Marco, who had a low sense of self-efficacy. Anna was able to obtain resources for her students because she continuously “ruffled so many feathers.” She explained how well her students were doing academically, crediting much of her success to being her students’ advocate and initiating whatever was in her locus of control. In contrast, Marco attributed much of his progress between his first two years in the classroom to his third year to a new group of students, finishing his graduate degree, and even possibly luck. If stress occurs at both stages of the cognitive process, intervention for preventing burnout, then, could potentially occur at both stages.

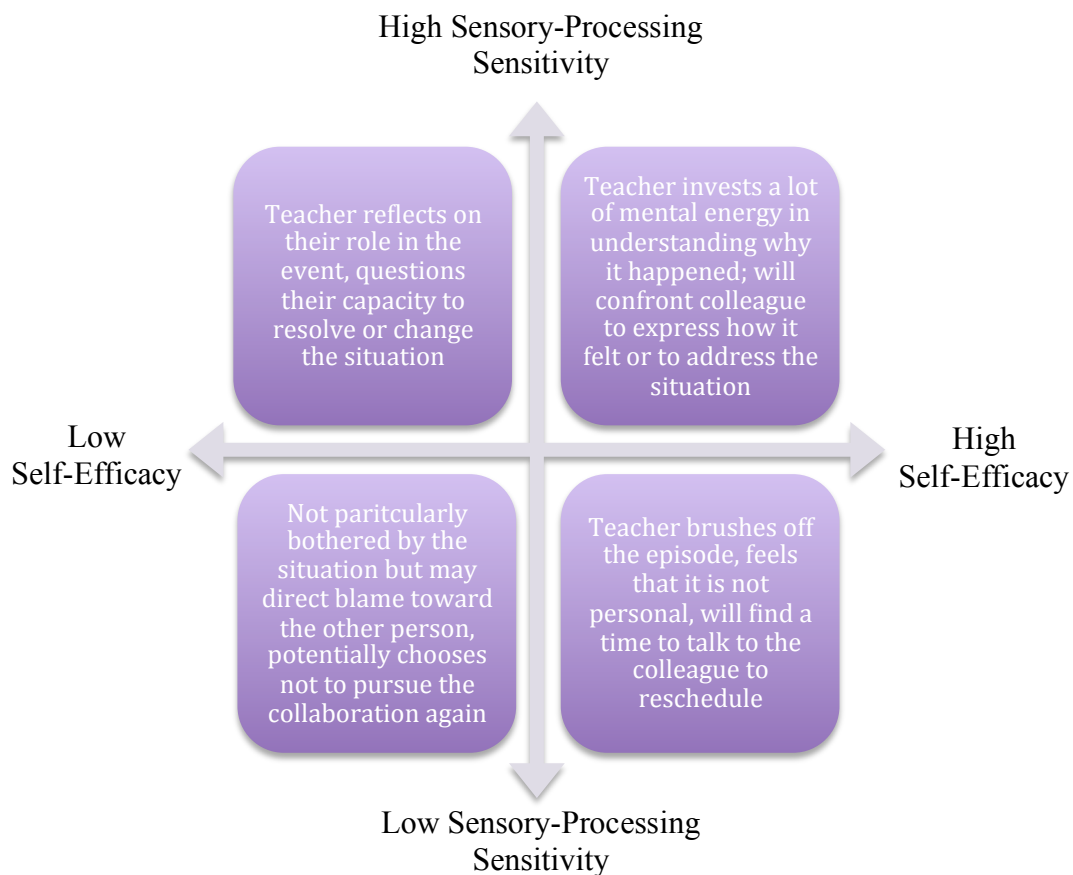


Figure 6.1. Potential Responses to a Stressful Event in Teachers With High or Low Sensory-Processing Sensitivity and High or Low Self-Efficacy

Predictors of Burnout. In the logistic regression model predicting the risk of burnout, SPS accounted for 37.3% of the variance in risk of burnout. SPS as a predictor was mediated by stress, which maintained statistical significance even after self-efficacy and all demographic variables were introduced. When self-efficacy was introduced into the model before stress, SPS remained statistically significant, indicating that both SPS and self-efficacy independently predict burnout risk. Once stress entered the model, SPS no longer statistically correlated with burnout risk. Demographics did play a role in teachers' risk of burnout. The final model showed that stress, self-efficacy, and source of teacher training significantly predicted burnout risk. Teachers who completed an alternative route to licensure (ARL) program had an increased risk of burning out compared to those who completed a dual Master's/Certification program. The limited interview sample did not reference their training when talking about their professional stressors or how they coped with them. Vaezi and Fallah (2011), in their study of self-efficacy and stress, found that not only is stress and self-efficacy negatively correlated, but that a teachers' sense of self-efficacy can predict their stress levels. Since self-efficacy was a significant predictor of burnout, this creates a possibility of approaching teacher burnout from two angles: making efforts to reduce stress while also making efforts to increase self-efficacy.

Leiter & Maslach (1988) posit that the three constructs of burnout do not occur simultaneously; rather, emotional exhaustion occurs first because of a socially and psychologically demanding work environment. Exhaustion leads to depersonalization, or separation from the work or relationships, and then that disconnect results in a decreased sense of accomplishment, eventually causing complete burnout and attrition. In this study, emotional exhaustion had a significant relationship with both SPS and self-efficacy, meaning teachers

displayed a leading indicator of burnout. Because emotional exhaustion is the first of three phenomena of burnout, the correlation with SPS and self-efficacy further underscores the need to be proactive in addressing and accommodating SPS and enhancing teachers' self-efficacy in their teaching abilities. By focusing on SPS and self-efficacy as potential avenues for support and understanding, teachers and school leaders can preempt emotional exhaustion and potentially prevent depersonalization or a decreased sense of accomplishment from occurring. School leaders could accomplish this by having an information sheet and resources available to teachers when they join the school or host a professional development on the trait and its implications. School leaders could also take notice should a teacher display some of the hallmark characteristics of SPS and encourage the characteristics that are most valuable in a school community. Helping teachers become self-aware of SPS may encourage them to evoke the coping strategies that best address their needs. Should opportunities arise to recognize teachers for their empathy or their diligence, school leaders should take advantage of them to model valuing sensitivity and promote it as a strong contributor to positive school culture.

Sensory-Processing Sensitivity and the Benefits of Self-Awareness

The trait of SPS provided additional understanding for teachers' cognitive appraisal and risk of burnout. Teachers demonstrated characteristics of SPS during their interviews and, once they learned more about it, indicated that the trait played an important role in their understanding of themselves. Several of the teachers showed that their cognitive appraisal shifted when they discussed how knowing about SPS changed the way they thought about themselves or others around them. Lambert et al. (2006) argue that an understanding of self prevents stress even without considering anything else, so the information alone about what it means to have characteristics associated with the SPS trait may help prevent burnout. Since teachers who are

more likely to present with SPS are more likely to feel stressed and thus have a greater risk of burnout, knowing whether one is more likely to present with the trait may have huge benefits for identifying appropriate strategies for coping with stressful situations.

Much of the literature points to SPS as genetically-based (Chen et al., 2011; Licht et al., 2011), so a teacher presenting with SPS cannot control how deeply they process stimuli or how they react emotionally; however, knowing how and why they experience the world in a more sensitized way than others may help them develop tools to amplify those traits when it is beneficial or moderate them when it is not. Jaeger (2004) writes that people with SPS are most affected by other people, and several of the teachers talked about their locus of control and their acceptance that they cannot control the behavior of their colleagues. The emphasis on positive school-based relationships that emerged from the data speak to Jagiellowicz's (2012) finding that people with SPS have stronger responses to positive stimuli than negative. SPS will have a great impact on the way a person understands or interprets events, but each person can develop their cognitive appraisal to react to those events in constructive ways since the value judgment they place on an event (e.g., "Do I interpret this event as positive or negative?") greatly influences the stress they feel as a result. As Marshall noted, "[sensitivity] is not your reaction to things; it's the way you understand things." Teachers who are likely to present with SPS cannot change the way they process the event, or input, but they can use their self-knowledge to adjust their reaction, or output. Nadia spoke to this when she said, after learning about SPS, that "now, as an adult, instead of being hypersensitive to other people and taking it personally, now it's picking up on where other people are." What seems to matter most is how the teacher engages in cognitive appraisal to interpret their environment in constructive ways; knowing they may have

characteristics associated with the SPS trait can empower them to utilize their sensitivity for success in the classroom.

Teachers' Coping Strategies

During the teacher interviews, patterns of coping strategies emerged as either routine or systematic. Teachers described the ways they drew on their day-to-day skills of prioritization, preparation, adaptation, and recuperation, an indication that these approaches are worthwhile for managing the demands of the classroom. Evers et al. (2008) and Aron (1996) point out the need for people with SPS to engage deliberately in recuperation or recovery time. All of the interviewed teachers mentioned the ways they recharged from the demands at work, including spending time with family, exercising, and spending quiet time alone. The more likely presence of SPS among this group may explain why recuperation became crucial to the point of isolation for some participants, though I did not compare the coping strategies of teachers who are more or less likely to present with SPS in order to uncover the extent to which teachers engaged in recuperation. Pairing the more routine strategies with the longer-term strategies of commitment to students, reflective practice, and positive school-based relationship paints a more comprehensive picture for how to support teachers with preventing burnout.

The finding that all of the interviewed teachers were highly committed to their students is encouraging for historically underserved schools concerned about the sustainability of their faculty. Teachers and school leaders can focus on implementing strategies that alleviate urgent stressors first, then focusing on the development of longer-term strategies. Murray-Harvey et al. (2000) write that experience in the classroom is itself a coping strategy, but teachers, particularly early career teachers who are at the highest risk of burnout, need something more than to wait for enough experience to offset their professional stressors. As Vesely et al. (2014) note, “managing

stress can be further enhanced by providing individuals with an increased capacity to cope and address the physiological and psychological effects of stress that in turn, lead to increases in one's personal and professional sense of wellness and well-being" (p. 81). This study aligns with that recommendation: focusing on teachers' self-efficacy and developing routine and systematic coping strategies, paired with an awareness of SPS and its implications, leads to reduced stress and risk of burnout. All of the teachers discussed the importance of collaboration in their sense of self-efficacy; therefore, providing structures that give teachers opportunities to collaborate around and learn effective strategies, both inside and outside the classroom, could significantly contribute to the development of their self-efficacy.

Implications for Stakeholders

Teachers

Most likely, this study has the greatest implications for teachers themselves since they bear much of the responsibility for their own wellbeing, particularly in schools where student needs are high and resources are limited. The implication for teachers is also great because SPS is such an internal, integrated component of their experience. Teachers can help reduce their stress and prevent burnout by focusing on the impact of SPS on their cognitive appraisal and the value of SPS in the classroom, employing effective coping strategies, and developing their self-efficacy.

As noted previously, self-awareness in and of itself reduces stress (Lambert et al., 2006). Teachers who find that they regularly experience stress that seems markedly different from their colleagues, particularly related to sensory stimulation, emotional exhaustion, or concern over mistakes, should engage in the Highly Sensitive Person Scale (1996) and self-reflect on the results. For teachers who are likely to present with SPS, knowledge of the trait can greatly

impact their cognitive appraisal, or the way they evaluate and apply meaning to the events they experience. Learning whether they may have SPS or not is a valuable tool for teachers, informing the way that they approach the work and the students and colleagues with whom they interact. A teacher who is aware that they process stimuli on a deeper level and may be prone to overstimulation will likely be able to recognize more quickly when their energy is getting depleted and, like Will, take steps to remedy it. Knowing as well that they are prone to emotional exhaustion, possibly the first indicator of impending burnout (Leiter & Maslach, 1988), may also make it more likely that teachers notice the symptoms and take action.

Teachers will also benefit from knowledge of SPS by highlighting its value in the classroom. The highly empathic nature and sensitivity to subtle stimuli of people with SPS makes them more attuned and responsive to others (Acevedo et al., 2014). For teachers in high needs schools, these characteristics are particularly beneficial for teacher-student relationships and building positive school cultures, significant factors in teacher attrition (Guin, 2004; Simon & Johnson, 2013). Teachers who know they have SPS may also take advantage of their conscientiousness and deliberateness in planning and preparation and leverage that to achieve better student outcomes.

This study's findings also suggest a strategy that teachers begin approaching coping strategies as either routine or systematic and be intentional about how they employ them. Developing systems of prioritization and preparation, as many of the interviewed teachers mentioned, as well as learning to be flexible, will support them with the general day-to-day management of the work. The development of these skills may be where coaching as proposed by Grierson (2011) may be most helpful. Learning to use these strategies effectively may require

practice through trial and error, but teachers can focus on them with the support of a coach or mentor knowing that they are highly impactful strategies for their particular needs.

Lastly, findings from this study provide evidence that greater self-efficacy in one's teaching abilities serves as a guard or insulator against burnout risk; thus, teachers would benefit from intentionally enhancing their sense of confidence as teachers through activities such as reflective practice and positive school relationships. Teachers must rely on each other through feedback loops that improve their practice and reinforce their mutual support, gaining confidence in their ability to be effective over time. Klassen and Chiu (2010) note that "self-efficacy beliefs in the workplace are not static and reflect a lifelong process of development that ebb and flow according to personal attributes and interpretation of environmental circumstances." Changes in self-efficacy may occur more effectively when teachers are open to learning, making necessary adjustments to their cognitive appraisal and making improvements that lead to better student outcomes.

School Leaders and Districts

School leaders and districts should learn more about SPS in order to understand the value of this population of teachers. Recognizing the specific characteristics of teacher with SPS that are most advantageous to students and colleagues will help them highlight those traits and draw them out intentionally. Additionally, awareness that teachers with SPS are more conscientious and empathic but also more at risk for stress and burnout may help school leaders inform professional development or priorities related to burnout and attrition. Addressing teachers' self-efficacy by using leadership styles and feedback systems that increase teachers' sense of self-efficacy may also have a long-term positive impact on teacher retention. Roeser et al. (2013) argues that teachers "need assistance in developing their self-regulatory resources (e.g., higher

order skills and mind-sets) for coping and being resilient” (p. 789). Assistance can come from their peers but can also come from their leaders and the school contexts in which they teach. Since “contextual factors such as the teaching resources and interpersonal support available were found to be much more salient in the self-efficacy beliefs of novice teachers” (Tschannen-Moran & Woolfolk Hoy, 2007), school leaders and districts should pay particular attention to the school cultures and communities they create and intentionally promote positive school environments.

Teacher Preparation Programs

Teacher preparation programs are in a unique position to equip teachers with skills and knowledge before the stressors of the classroom come into effect. The more effectively teacher preparation programs can equip teachers with internal mechanisms for coping with stress, the greater their potential for success. Providing teachers with an awareness of SPS and the ways it impacts teachers in the classroom could greatly benefit teachers over the course of their career. For the teachers in this study, simply talking about SPS was helpful, even for Marco, who did not feel that the trait described him accurately. For the remaining teachers, learning about SPS and the fact that they are more likely to present with the trait shifted their cognitive appraisal, and several indicated that it will change the way they approach their classroom. Having this knowledge up front may give incoming teachers more avenues for highlighting the trait’s benefits and more tools for working with their students and colleagues. Programs could use the HSP Scale (1996) as a diagnostic tool to encourage teachers with high sensitivity to use strategies like recognizing when they feel over-stimulated, pursuing structured recuperation time, and taking advantage of their reflective nature to improve their teaching practices.

Limitations of the Study

The research on SPS is still young, and my hope was to contribute to the emerging body of literature on the topic from an educational leadership perspective. My findings show that while teachers who demonstrate characteristics of SPS may not have needs markedly different from other teachers, the self-awareness and self-understanding that may result from simply learning about the trait may be of benefit to teachers and provide them with some guidance for coping with the demands of the profession. In addition, as the literature suggests, the data showed that self-efficacy is an important lever in sustaining teachers' retention in the profession. These findings, though, are limited by the imprecise nature of defining SPS and some flaws in the research design, including a skewed demographic in the sample population, the imprecision of calculating burnout, and a missed opportunity in survey questioning. In addition, I made one key assumption that influenced the direction of the study and is worthy of discussion.

Defining Sensory-Processing Sensitivity. Currently, the ability to measure Sensory-Processing Sensitivity (SPS) in a concrete way does not exist. The research using fMRI scans I described in the literature are promising in their potential to garner more insight into the ways a person might be affected by the trait on a physiological level, but for the time being, our best and most cost-effective measure is through self-reporting and comparing the experiences and perspectives of people who land on various points of the sensitivity spectrum. Indeed, most of us, when presented with personality tests or character descriptions, can find something that feels relatable and that we would consider true of our own personality; however, the value of self-reporting is in making meaning of individuals' experiences and is a reasonable approach to this study. In addition to a more reliable way to measure the trait, a clearer break point for determining high sensitivity might have also made the results more reliable. The distribution of

scores among the survey sample population helped to verify the existence of a spectrum of sensitivity, but because the scores were so evenly distributed, two dichotomous groups were harder to determine and required a cut point based on the recommendations of the literature rather than the data itself.

Research Design. My research design contained a few flaws that place limits on this study's findings. I surveyed 114 teachers from urban schools and interviewed seven who had SPS scores in the highest 21.9% of the survey sample population, making this sample population too small to generalize to the population of teachers in this one district let alone those teaching in other districts. Additionally, my survey sample included a large majority of high school teachers (44.7%) versus middle school and elementary school teachers (31.6% and 23.7%, respectively), and I had no elementary school teachers in my interview sample. While elementary teachers were included in the survey sample population and did have SPS scores in the top 20% of that group, none responded to the request to participate in the qualitative phase of the research.

Lastly, I discovered a missed opportunity during the analysis of my quantitative data. My survey instrument asked teachers how long they had been in the profession, presenting options up to five years but then limiting teachers with more than five years of experience to one answer. My rationale for designing the item this way was to identify teachers who were past the risk zone of attrition and who had significant experience to share, but I did not foresee that significant trends could emerge among that subgroup. Borman and Dowling (2008) found that the professional and personal factors that impact attrition change over time, so had I provided more specific choices for teachers who had been teaching past five years, I may have been able to better compare patterns of SPS and burnout across the participant demographics of age and years of experience.

Assumptions. I made one key assumption during the design and implementation of this study that may have influenced my approach to the research. I anticipated that the presence of SPS would be a clearer binary and that teachers who were likely to present with the trait would be more noticeably distinct from the rest of the population. However, this was not the case. As mentioned previously, the distribution of SPS scores was remarkably even, so much so that almost every possible score within the range was represented. Among interview participants, indications of SPS were difficult to identify and distinguish from general teacher experiences, particularly because I self-identify as presenting with SPS and am faced with my own interpretations. I also tended to think about the effects of presenting with SPS, at least in terms of teacher stress and burnout, as negative (e.g., overstimulation and depth of processing leading to a general feeling of being overwhelmed and exhausted). I did not fully consider prior to data collection how presenting with SPS, such as empathy, could prevent stress and burnout. Attributing teachers' characteristics to SPS specifically rather than to the profession of teaching more generally was not always entirely clear or clean cut. Solutions for limiting this difficulty in future studies are discussed in the following section. Despite this assumption, my interview protocol remained neutral and I employed a rigorous data analysis process as well as garnered feedback on my findings to mitigate any impact these assumptions would have.

Directions for Further Study

I designed this study with the intention of contributing to the limited social science research on SPS and hopefully uncover findings that would contribute to the success of teachers in the classroom. The study lends itself to many opportunities for future research. The fact that SPS and self-efficacy did not correlate with each other provides multiple avenues for follow up, including measuring additional aspects of self-efficacy beyond student learning, such as

instructional strategies and classroom management (Tschannen-Moran and Woolfolk Hoy, 2001), adding questions to the interview protocol that explore more details about teachers' capabilities in skills like planning and building student relationships, and examining the extent to which teachers believe their sensitivity contributes to their effectiveness in the classroom.

Because the qualitative phase of this study included teachers who had the highest SPS scores among the sample population, a study that collected qualitative data from teachers with both high and low SPS scores could elicit data from which to make comparisons and confirm differences in experience between the two groups. Another way to further explore the potential role of SPS in teachers and generalize the findings would be to replicate this study with a larger sample population and use multiple researchers who have varying SPS scores themselves, thereby employing a form of "investigator triangulation" (Merriam, 2009) to limit bias while assessing the characteristics of SPS in participants.

For all but one of the interviewed teachers, this study was the first time they had ever heard of Sensory-Processing Sensitivity, and the single teacher who had heard the term did not know she scored high on the sensitivity scale. In addition, none of the interviewed teachers had any inclination that this is why they were being interviewed. My intention is to follow up with this particular group of teachers in the near future and find out how their participation in the study and their discovery of SPS has impacted them. What was their immediate response in the days after and did that change over time? Did they conduct any of their own research about SPS or talk to others about it? Have they adopted new attitudes or mindsets in their classrooms or changed any of their approaches to their work? Has it affected their relationships with students? A follow-up study to gather the reflections of the participants is an invaluable opportunity to further investigate the impact of SPS on their cognitive appraisal and coping strategies.

As another opportunity for further study, a longitudinal inquiry that expanded the sample population and evaluated how SPS may or may not affect teachers' cognitive appraisal after learning about the trait would better assess the overall impact of the trait. Observing the coping strategies they elicit following their discovery of the trait and comparing risk of burnout over time would uncover the most successful coping strategies for those who identify with the trait. Moreover, this study provided strong evidence that teachers who are likely to present with SPS are more likely to burnout if they have high levels of stress and low self-efficacy, but the questions of how these factors influence teachers' relationships with students and colleagues, how they influence teachers over time, and even how they influence student learning are still left to answer.

Lastly, future research could investigate the relevance of these findings to other professions. This study solely focused on teachers, but the role of SPS in other professions, particularly helping professions like social work and healthcare, would enrich our understanding of the significance of SPS in people's work lives, particularly in uncovering coping strategies to prevent burnout.

Final Thoughts

This study is very preliminary in a new field; therefore, its implications are both exciting and incomplete. SPS is a topic I stumbled upon close to ten years ago when I read *The Highly Sensitive Person* (Aron, 1996) and began to see my own high sensitivity as a strength rather than a burden. As a classroom teacher, I experienced an inexplicable contradiction: I felt simultaneously like a great teacher and a terrible teacher. In retrospect, this sentiment was likely the intersection of SPS and emotional exhaustion. I was so conscientious about my work that I put great effort into it, meticulously planning and trying to keep up with the grading and

feedback being an effective English Language Arts teacher required. At the same time, the impact I was having on students felt inadequate, and I worried constantly about my students both academically and personally. I self-identified as someone with SPS and knew that I was prone to over-stimulation and fatigue, and I eventually felt that teaching in that setting was no longer sustainable. I cannot clearly state what would have made the difference to keep me in the secondary classroom, but I imagine that a community more understanding of the particular challenges I felt and assistance in developing effective coping strategies similar to the ones teachers in this study have developed would have helped.

Teachers bring their individuality to the classroom, and my main goal with this project was to highlight the unique, beneficial characteristics that people with SPS bring to the profession of teaching. All of the teachers I interviewed displayed such kindness and care for their students that I felt inspired. Marshall's rare generosity and Anna's willingness to be there for her students no matter what are characteristics that we should highly value in the classroom, especially in high needs schools where students, in Lauren's words, have empty love accounts. The empathy and awareness of those around them, sensing others' moods, being deliberate and conscientious and thoughtful, are characteristics of people with SPS that are incredible assets in a helping profession. We must keep in mind, though, that drawbacks exist. When teachers with SPS experience stimuli in great quantities or in consistently negative contexts, their risk of stress and burnout is high. We must do everything we can to mitigate that effect and keep our most sensitive, conscientious teachers in the classroom so that our students benefit from everything they have to offer.

APPENDIX A: Quantitative Informed Consent

***TEACHERS' INTERPRETATIONS OF THEIR CLASSROOM EXPERIENCES SURVEY* INFORMATION and CONSENT SHEET**

PURPOSE OF THE STUDY

Julie Stefan Lindsay, Ed.D. candidate, under the guidance of Dr. Diane Durkin and Dr. Kevin Eagan from the Graduate School of Education and Information Studies at the University of California, Los Angeles, is conducting a research study on teachers' interpretations of their classroom experiences. You were selected as a possible participant because you are a current classroom teacher in an urban school.

PROCEDURES

To participate in this study, complete and submit the web-based questionnaire. Most respondents complete this questionnaire in about 15-20 minutes, although individual progress will vary by how quickly you move through the questions. Questions will ask you to describe your perspective on topics like stress and burnout. You may decide not to complete the survey for any reason at any time without consequence of any kind. Your participation and return of the questionnaire indicate your consent to participate in the study. Per LAUSD guidelines, this survey should not be completed during work hours.

POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY

You may have the opportunity to reflect on your experiences as a teacher, which may enhance self-understanding. Your responses to the survey also will be directly beneficial to your school or district by informing teacher preparation programs, professional development, and/or school-based support.

PAYMENT FOR PARTICIPATION

Participants may submit their name and email to win a \$25 gift card to Amazon. Participation in the study is not required in order to participate in the raffle.

POTENTIAL RISKS AND DISCOMFORTS

There could be survey items of a sensitive nature that you are uncomfortable answering or to which you would simply prefer not to respond. Your participation in this study is strictly voluntary, and you will be under no obligation whatsoever to answer any questions that you are not inclined to answer. You may choose not to answer any specific questions you do not want to answer and still remain in the study.

CONFIDENTIALITY

The survey is anonymous and does not collect any personally identifying information; however, the researcher does ask respondents if they would be interested in participating in follow-up journal writing and/or in an interview. Only if the respondent explicitly and voluntarily provides their name and email will the researcher retain this information. Any information that is obtained that can identify you will remain confidential and will be disclosed only with your permission or as required by law.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please contact Julie Stefan Lindsay at jlindsay@ucla.edu, Dr. Diane Durkin at durkin@humnet.ucla.edu, or Dr. Kevin Eagan at mkeagan@ucla.edu.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact the UCLA Office of the Human Research Protection Program at 11000 Kinross Avenue, Suite 211, Box 951694, Los Angeles, CA 90095-1694, (310) 825-7122.

APPENDIX B: Qualitative Informed Consent

***TEACHERS' INTERPRETATIONS OF THEIR CLASSROOM EXPERIENCES:* Journal and Interview Information Sheet**

PURPOSE OF THE STUDY

Julie Stefan Lindsay, Ed.D. candidate, under the guidance of Dr. Diane Durkin and Dr. Kevin Eagan from the Graduate School of Education and Information Studies at the University of California, Los Angeles, is conducting a research study on teachers' interpretations of their classroom experiences. You were selected as a possible participant because you indicated a willingness to participate in this phase of the research on the initial survey.

PROCEDURES

To participate in this study, you will first write a journal entry, which will be completed at a convenient time for you and take about 15-30 minutes. Individual progress will vary by how quickly you write your response. You will then participate in a one-on-one interview with the researcher lasting approximately 45-60 minutes, occurring at a time and place convenient to you. Questions will ask you to describe your perspective on topics like stress, burnout, and coping mechanisms you use to overcome them. You may discontinue your participation in the research for any reason at any time without consequence of any kind.

POTENTIAL BENEFITS TO SUBJECTS AND/OR SOCIETY

You may have the opportunity to reflect on your experiences as a teacher, which may enhance self-understanding. Your responses to the journal and interview questions also will be directly beneficial to your school or district by informing teacher preparation programs, professional development, and/or school-based support.

PAYMENT FOR PARTICIPATION

Participants who complete both sessions will receive a \$25 gift card to the participant's choice of Amazon or Starbucks.

POTENTIAL RISKS AND DISCOMFORTS

There could be questions of a sensitive nature that you are uncomfortable answering or to which you would simply prefer not to respond. Your participation in this study is strictly voluntary, and you will be under no obligation whatsoever to answer any questions that you are not inclined to answer. You may choose not to answer any specific questions you do not want to answer and still remain in the study.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can identify you will remain confidential. It will be disclosed only with your permission or as required law. Confidentiality will be maintained through the following procedures:

- Any word file of the journal and any audiotape file of the interview will be kept on a password-protected computer in a password-protected folder and will only be accessed by the researcher
- Following transcription of the file, individuals' names will be converted into pseudonyms. Only the researcher will have access to the codesheet.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please contact Julie Stefan Lindsay at jlindsay@ucla.edu, Dr. Diane Durkin at durkin@humnet.ucla.edu, or Dr. Kevin Eagan at mkeagan@ucla.edu.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact the UCLA Office of the Human Research Protection Program at 10889 Wilshire Blvd, Suite 830, Los Angeles, CA 90095-1406, (310) 825-7122.

You will be given a copy of this information to keep for your records.

APPENDIX C: Survey Instrument

TEACHING BACKGROUND: Select the option that best describes you.

1. Years spent in the profession
 - 0-1
 - 2-3
 - 4-5
 - More than 5

2. Grade level taught
 - Elementary (K-5)
 - Middle School/Junior High (6-8)
 - High School (9-12)

3. Source of Teacher Training
 - Undergraduate College or University
 - Dual Master's/Certification Program
 - Alternative Route to Licensure (ARL)
 - Teach First Program (e.g., Teach for America)
 - Other:

SECTION ONE: Answer each question according to the way you personally feel using the following scale:

1	2	3	4	5	6	7
Not at all			Moderately			Extremely

- Are you easily overwhelmed by strong sensory input?
- Do you seem to be aware of subtleties in your environment?
- Do other people's moods affect you?
- Do you tend to be more sensitive to pain?
- Do you find yourself needing to withdraw during busy days, into bed or into a darkened room or any place where you can have some privacy and relief from stimulation?
- Are you particularly sensitive to the effects of caffeine?
- Are you easily overwhelmed by things like bright lights, strong smells, coarse fabrics, or sirens close by?
- Do you have a rich, complex inner life?
- Are you made uncomfortable by loud noises?
- Are you deeply moved by the arts or music?
- Does your nervous system sometimes feel so frazzled that you just have to go off by yourself?
- Are you conscientious?
- Do you startle easily?
- Do you get rattled when you have a lot to do in a short amount of time?

- When people are uncomfortable in a physical environment do you tend to know what needs to be done to make it more comfortable (like changing the lighting or the seating)?
- Are you annoyed when people try to get you to do too many things at once?
- Do you try hard to avoid making mistakes or forgetting things?
- Do you make a point to avoid violent movies and TV shows?
- Do you become unpleasantly aroused when a lot is going on around you?
- Does being very hungry create a strong reaction in you, disrupting your concentration or mood?
- Do changes in your life shake you up?
- Do you notice and enjoy delicate or fine scents, tastes, sounds, works of art?
- Do you find it unpleasant to have a lot going on at once?
- Do you make it a high priority to arrange your life to avoid upsetting or overwhelming situations?
- Are you bothered by intense stimuli, like loud noises or chaotic scenes?
- When you must compete or be observed while performing a task, do you become so nervous or shaky that you do much worse than you would otherwise?
- When you were a child, did parents or teachers seem to see you as sensitive or shy?
- Are you a tense or worried person by nature?
- Are you prone to fears?
- Are you prone to depression?

SECTION TWO: Please indicate your opinion about each of the questions below by marking any one of the nine responses ranging from (1) “None at all” to (9) “A great deal” as each represents a degree on the continuum.

1	2	3	4	5	6	7	8	9
None at all		Very little		Some degree		Quite a bit		A great deal

- How much can you do to get students to believe they can do well in school work?
- How much can you do to help your students value learning?
- How well can you establish a classroom management system with each group of students?
- To what extent can you provide an alternative explanation or example when students are confused?
- How much can you do to adjust your lessons to the proper level for individual students?

SECTION THREE*:

*Items from the Maslach Burnout Inventory-Educators Survey (MBI-ES) are copyright protected by Mind Garden, Inc.

- Hispanic or Latino
- Black or African American
- Asian
- Native American or American Indian
- Pacific Islander
- Caucasian or White
- Multiracial
- Other (please specify):

VOLUNTEERS NEEDED: Earn a \$25 Amazon gift card!

This study includes a second phase in which participants may engage in journal writing and a one-on-one interview with the researcher. You will be compensated with a \$25 Amazon gift card for completing the second phase. If you are interested in continuing as a participant, please enter your name, email, and phone number below.

Thank you so much for your contributions to this research!

Name:

Email:

Phone Number:

APPENDIX D: Journal Protocol

Teachers' Experiences Journal Prompt

Please respond to the following prompt in this Word Document. When you have completed your response, please email it back to Julie at jlindsay@g.ucla.edu.

Thank you!

Think of a time at work recently when demand for your energy was high. In these types of situations, do you feel different from others? If so, in what ways?

- If you were to think about how you react to demanding situations at work in comparison to your colleagues, in what ways would you be similar? In what ways would you be different?
- What do you do to manage those situations? In what ways are those approaches different from others, if any?

Please type your response below:

APPENDIX E: Interview Protocol

Teachers' Experiences Interview Protocol

1. Please tell me what you like most about teaching. What do you like least?
2. Do you consider being a teacher a difficult job? Why or why not?
3. Describe an experience in the last few days that required particular attention:
 - What happened and who was involved?
 - How did you manage the situation?
 - What were some of the emotions, behavior, reactions, and/or thoughts that resulted because of this experience?
4. Were there any times today when you felt like you couldn't or didn't want to continue as a teacher? What preempted that reaction? If not, what factors made the work sustainable today?
5. Think of a recent work situation that caused you stress. Do you feel this situation caused you more stress than it would have caused other teachers? If so, please explain.
 - a. If a recent situation has caused you stress, what did you do to ease that stress right after? Later in the day? The next day?
6. Have people observed you as being different when it comes to how you process information, manage work stress, and/or recover from challenging experiences? If so, tell me about that.
7. After overcoming a challenge at work, how do you make meaning of the experience? Please describe that process.
 - a. When you think about it, do you make conclusions about yourself or others or connect it to a bigger picture in some way?
8. Think about a time at work when you felt you had the skills and tools to do your job well. What were the circumstances that helped create that situation?
9. How would you describe your personality? In what ways does your personality affect your approach to your job, if at all?
 - a. How does your personality impact your collaboration with colleagues?
 - b. How does your personality impact your collaboration with students?
 - c. How does your personality impact your collaboration with your school leaders?
10. How much familiarity do you have with the terms "Sensory-Processing Sensitivity" or "Highly Sensitive Person"?
 - o Looking at the description of this trait, do you think it applies to you? Why or why not?
 - o Anything else on this topic you'd like to share?

APPENDIX F: Sensory Processing Sensitivity Information Sheet

Sensory Processing Sensitivity

What is Sensory Processing Sensitivity?

Sensory-Processing Sensitivity (SPS)* is a temperament trait found in about 15-20% of the general population¹. The trait is also known as being a Highly Sensitive Person (HSP) and is marked by a preference to process stimuli more deeply. In the workplace, SPS is demonstrated by four principal characteristics:

- **Depth of processing** (deliberate, conscientious, remarkably reflective)
- **Easily over-stimulated** (easily stressed by noise, chaotic situations, or working in groups; needs a lot of down time or recovery time)
- **Emotionally reactive** (react strongly to feedback either positive or negative, considerable empathy for others, attends to group morale)
- **Sensitive to subtle stimuli** (notices details, seems to “sense” the mood in the room)

Other characteristics include creativity, responsive to others’ needs, preferring to pause before acting, and a propensity to be upset by failures and mistakes, unethical behavior, or stressful conditions in general. SPS is a temperament trait, meaning it is the behavioral style of a person and results from a combination of genetic, biological, and environmental factors.² The trait can also be found in other species like pumpkinseed fish and primates.³

How do I know if I have SPS or am an HSP?

SPS is part of a person’s genetic makeup; differences between people who present with SPS and those who do not can be seen in fMRI scans and by looking at the genotype of serotonin transmitter genes⁴. While these kinds of tests are not easily available, you can take a brief self-test at <http://hsperson.com/test/highly-sensitive-test/>. A more thorough self-test (the one I used in the survey you took) can be found here: http://hsperson.com/pdf/HSPSCALE_2007_research.pdf

What does this mean for me as a professional?

People who present with characteristics of SPS may simply have particular needs for managing the amount of stimulation, information, and emotions they process in their everyday life, or it may not affect them at all. As a professional, awareness of the trait may give you an opportunity to discover its value and use it to its greatest benefit in your role as an educator.

Additional Resources:

- The Highly Sensitive Person website has resources, research, and FAQs at www.hsperson.com
- *The Highly Sensitive Person* by Elaine Aron, Ph.D., is the preeminent book on the topic.
- More books about HSPs can be found at <http://hsperson.com/books/>
- More resources, including resources for parents of highly sensitive children, can be found at <http://hsperson.com/resources/for-hsps/>

¹Aron (1996)

²Coleman & Wilson (1998); Suomi (2006); Wolf, Doorn, & Weissing (2008)

³Chen et al. (2011); Licht, Mortensen, & Knudsen (2011); Acevedo et al. (2014); Jagiellowicz et al. (2011); Jagiellowicz (2012).

- If you would like my reference list for articles and research about Sensory Processing Sensitivity, please email me at jlindsay@g.ucla.edu.

*Please note that SPS is not the same thing as Sensory Processing Disorder or Sensory Integration Disorder

APPENDIX G: Descriptive Statistics of Survey Sample Population (n=114)

Sex	Frequency	Percent
Female	67	58.8
Male	41	36.0
Prefer not to say	6	5.2
Age	Frequency	Percent
30 years or younger	15	13.2
31-40 years old	36	31.6
41-50 years old	44	38.6
50 years or older	19	16.7
Race/Ethnicity	Frequency	Percent
Hispanic or Latino	46	40.4
Asian or Pacific Islander	19	16.7
Caucasian or White	18	15.8
African American or Black	15	13.2
Multiracial or Other	16	14.0
Number of Years Teaching	Frequency	Percent
0-1 years	4	3.5
2-3 years	11	9.6
4-5 years	8	7.0
More than 5 years	91	79.8
Grade Level Currently Teaching	Frequency	Percent
Elementary (K-5)	27	23.7
Middle school/Junior high (6-8)	36	31.6
High school (9-12)	51	44.7
Source of Teacher Training	Frequency	Percent
Dual Master's/Certification	47	41.2
Alternative Route to Licensure (ARL)	7	6.1
Teach First program (e.g., Teach for America)	4	3.5
Undergraduate program	46	40.4
Other ¹	10	8.8

¹Other includes district sponsored programs or related Master's degrees

APPENDIX H: Descriptive Statistics of Journal and Interview Sample (n=7)

Pseudonym	Descriptive Statistics	Pseudonym	Descriptive Statistics
Anna	Female 30 years or younger Multiracial More than 5 Middle school/Junior high Undergraduate program	Marshall	Male 50 years or older Asian More than 5 High School Dual Master's/Certification
Jonathan	Male 41-50 Pacific Islander More than 5 Middle school/Junior high Dual Master's/Certification	Nadia	Female 31-40 Caucasian or White More than 5 High School Undergraduate program
Lauren	Female 50 years or older Caucasian or White More than 5 High School Alternative Route to Licensure	Will	Male 50 years or older Caucasian or White More than 5 High School Undergraduate program
Marco	Male 30 years or younger Hispanic or Latino 2-3 years Middle school/Junior high Teach First program		

APPENDIX I: Mean Scores for Participants' Responses to Sensory-Processing Sensitivity, Self-Efficacy, Burnout, and Stress Survey Items

Instrument	Question	Mean	Standard Deviation
Highly Sensitive Person Scale (1996) Scale 1-7	Are you easily overwhelmed by strong sensory input?	3.07	1.49
	Do you seem to be aware of subtleties in your environment?	4.83	1.43
	Do other people's moods affect you?	3.79	1.58
	Do you tend to be more sensitive to pain?	3.17	1.49
	Do you find yourself needing to withdraw during busy days, into bed or into a darkened room or any place where you can have some privacy and relief from stimulation?	2.80	1.82
	Are you particularly sensitive to the effects of caffeine?	2.72	1.72
	Are you easily overwhelmed by things like bright lights, strong smells, coarse fabrics, or sirens close by?	2.54	1.69
	Do you have a rich, complex inner life?	4.62	1.51
	Are you made uncomfortable by loud noises?	3.30	1.68
	Are you deeply moved by the arts or music?	5.06	1.59
	Does your nervous system sometimes feel so frazzled that you just have to go off by yourself?	2.84	1.59
	Are you conscientious?	5.24	1.46
	Do you startle easily?	2.85	1.42
	Do you get rattled when you have a lot to do in a short amount of time?	3.47	1.50
	When people are uncomfortable in a physical environment do you tend to know what needs to be done to make it more comfortable (like changing the lighting or the seating)?	4.83	1.49
	Are you annoyed when people try to get you to do too many things at once?	4.05	1.58
	Do you try hard to avoid making mistakes or forgetting things?	4.99	1.41
Do you make a point to avoid violent movies and TV shows?	3.41	2.05	
Do you become unpleasantly aroused when a lot is going on around you?	3.04	1.48	

	Does being very hungry create a strong reaction in you, disrupting your concentration or mood?	3.55	1.78
	Do changes in your life shake you up?	3.75	1.44
	Do you notice and enjoy delicate or fine scents, tastes, sounds, works of art?	4.87	1.53
	Do you find it unpleasant to have a lot going on at once?	3.61	1.55
	Do you make it a high priority to arrange your life to avoid upsetting or overwhelming situations?	4.32	1.56
	Are you bothered by intense stimuli, like loud noises or chaotic scenes?	3.47	1.66
	When you must compete or be observed while performing a task, do you become so nervous or shaky that you do much worse than you would otherwise?	3.21	1.64
	When you were a child, did parents or teachers seem to see you as sensitive or shy?	3.79	2.01
	Are you a tense or worried person by nature?	3.16	1.68
	Are you prone to fears?	2.73	1.56
	Are you prone to depression?	2.48	1.65
Teachers' Sense of Efficacy Scale (2001) Scale 1-9	How much can you do to get students to believe they can do well in school work?	7.43	1.33
	How much can you do to help your students value learning?	7.48	1.34
	How well can you establish a classroom management system with each group of students?	7.38	1.43
	To what extent can you provide an alternative explanation or example when students are confused?	7.63	1.24
	How much can you do to adjust your lessons to the proper level for individual students?	7.38	1.37
Maslach Burnout Inventory-Educators Survey (1996)* Scale 0-6	I feel emotionally drained from my work	2.92	1.65
	I feel used up at the end of the workday	3.17	1.83
	I feel I'm working too hard on my job	3.22	1.83

*Remaining items on the MBI-ES (1996) are copyright protected by Mind Garden, Inc.

Revised Teacher Stress Inventory (1984)	I feel over-committed at work with too many duties and responsibilities	3.25	1.23
	I often take work home	3.72	1.29
Scale 1-5	I have enough time to relax (reverse-coded)	3.39	1.13
	I have a hard time balancing my work life with my personal life	2.50	1.26
	My personal priorities are being shortchanged due to time demands	2.74	1.30
	I have enough time to prepare lessons (reverse-coded)	3.19	1.16
	I find the physical environment of my classroom to be over-stimulating	1.85	1.04
	I find the physical environment of my school to be over-stimulating	1.89	1.12
	I feel physically exhausted much of the time	2.45	1.21
	I receive adequate feedback from my school leaders (reverse-coded)	2.93	1.19
	I have opportunities to reflect on my teaching practice (reverse-coded)	2.55	1.05
	I have opportunities for professional development that meets my individual needs (reverse-coded)	2.87	1.25
	I do not have adequate opportunities to learn from colleagues and/or school leaders	2.38	1.18
	I receive recognition for the extra work and/or good teaching I do (reverse-coded)	3.25	1.21
	I feel a lack of control over school decisions that affect my students and me	2.82	1.15
	My personal opinion as a teacher does not count much	2.61	1.15
	I often feel isolated and do not feel “safe” to speak my mind with colleagues or administrators	2.38	1.35
	My school leaders know me as an individual (reverse-coded)	2.49	1.35
	Dealing with parents is stressful	2.49	1.23
	Dealing with colleagues is stressful	2.37	1.23
I feel overwhelmed with what is expected of me as a teacher and have doubts about my ability to make a difference in students’ lives	2.04	1.12	
I am able to seek out social support when I feel particularly stressed with school issues (reverse-coded)	2.61	1.27	

APPENDIX J: Survey Instrument Permission Letters

For use by Julie Lindsay only. Received from Mind Garden, Inc. on November 28, 2016



www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: **Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey**

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Sincerely,

Robert Most
Mind Garden, Inc.,
www.mindgarden.com

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William & Mary School of Education

MEGAN TSCHANNEN-MORAN, PhD
PROFESSOR OF EDUCATIONAL LEADERSHIP

January 18, 2017

Julie,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research. You can find a copy of the measure and scoring directions on my web site at <http://wmpeople.wm.edu/site/page/mxtsch> . Please use the following as the proper citation:

Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

I would love to receive a brief summary of your results.

All the best,

Megan Tschannen-Moran
The College of William and Mary
School of Education

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