THE RELATIONSHIP OF SELF-EFFICACY AND PROFESSIONAL DEVELOPMENT ON

THE JOB SATISFACTION OF PRE-KINDERGARTEN TEACHERS

by

Amanda Mulledy Stevens

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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Abstract

Retaining high quality teachers continues to be a priority of school districts across the country, especially with a continued increase in the number of teachers leaving the profession. Understanding why teachers are leaving and how districts might provide support to stem this exodus is an ongoing question for educational leaders. The purpose of this quantitative correlational study was to determine if self-efficacy and professional development could predict the job satisfaction of pre-kindergarten teachers in West Virginia. The survey was given to pre-kindergarten teachers in multiple school districts who were selected through convenience sampling from West Virginia during the 2020-2021 school year. The Teacher Self-Efficacy Survey and the Teacher Job Satisfaction Questionnaire were used to measure the self-efficacy and job satisfaction, with professional development self-reported by participants. A linear regression analysis was used to determine the predictability of self-efficacy and professional development on job satisfaction. Results found self-efficacy was a predictor of job satisfaction of pre-kindergarten teacher. While professional development was shown to have some predictability of job satisfaction, the data were not significant enough to reject the null hypothesis.

Keywords: job satisfaction, self-efficacy, professional development, early childhood

Dedication

This work is dedicated to my family. To my husband Glenn for his quiet strength and patience as I worked through this process, I am eternally grateful God led me to you. To my daughters, Anna and Kaitie, I thank you for constantly challenging my thoughts and constantly pushing me to keep learning. To my parents, Richard and Janis Mulledy, I would not be where I am without the solid foundation you built for me. You truly gave me roots so I could spread my wings. Finally, to the good Lord who has given me each new day to continue to live a life reflective of Him.

Acknowledgments

Table of Contents

List of Tables

List of Figures

List of Abbreviations

Pre-Kindergarten (Pre-K)

Professional Development (PD)

Teacher Job Satisfaction Questionnaire (TJSQ)

Teacher Self-Efficacy Scale (TSES)

West Virginia Department of Education (WVDE)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative correlational study was to determine if self-efficacy and professional development could predict the job satisfaction of pre-kindergarten teachers within West Virginia. Chapter One discusses the background related to the study, specifically as it pertains to the unique role of the pre-kindergarten teacher and the importance of building their professional development to increase their job satisfaction and self-efficacy. The problem statement is presented, and it will show how the present study will add to the growing body of literature. Last, the purpose and significance of the study is discussed and includes the research question and relevant definitions.

Background

Across the country teachers and education personnel are part of a growing activism movement that is not just about pay raises. Keeping teachers and giving them a living wage is important but so is getting more resources for their students and saving public education (Will, 2019). At the conclusion of these actions, teachers headed back to their classrooms to do the jobs they were trained for while wondering if their actions would bring about change. Carver-Thomas and Darling-Hammond (2017) have found the most frequent reasons for teacher attrition have revolved around dissatisfaction with the pressures of test-based accountability, lack of administrative support, and an overall dissatisfaction with teaching. Digging deeper into how teachers feel about their jobs and how districts and states can support growth becomes something of note in the education world.

One of the most frequently cited reasons for dissatisfaction among teachers has been salary (Ingersoll et al., 2018). Hanushek (2015) pointed out the increased salaries of laborers in

other parts of the economy over the last two decades; however, teachers have not seen the same results. The simplest explanation has come from the political nature of teacher salaries, driven by bargaining at the local level and legislative action at the state level (Hanushek, 2015). While the low performance of schools and the frequent battles over vouchers and charter schools has brought public attention to the schoolhouse, nothing has been quite as effective in turning the public's attention to teacher salary than strikes in six states in recent years (Cheng et al., 2019). Educators have repeatedly sought to change the notion that teaching is not lower-skill industrial work with interchangeable and easily replaced teachers but a highly professional job requiring specialized skills and knowledge (Ingersoll et al., 2018).

The study of self-efficacy began in the 1950s with the work of Albert Bandura and his Social Cognitive theory and has been used throughout the subsequent decades within the field of education. Positive emotional attributes such as hope, efficacy, resilience, and optimism enable people to thrive professionally (LaRocco & Sopko, 2017). Tschannen-Moran and McMaster (2009) noted the importance of understanding the role of self-efficacy in implementing new strategies through professional development. Guskey (1986) emphasized the importance of understanding what motivates teachers to change and how that change takes place. Job satisfaction has been explored throughout many different fields and is based on Edwin Locke's Range of Affect theory (1969) or Herzberg's Motivation-Hygiene theory (1974), depending on the study. In a review of literature on preschool teacher well-being, Hall-Kenyon et al. (2014) noted current reform efforts tend to be too narrow with an emphasis on universal standards and accountability and minimal thought given to how the teachers are doing. Simply mandating reforms without fully looking at what teachers need may increase teacher discontent and ultimately teacher turnover. Zwart et al. (2015) pointed out educational leaders and teachers do

not take each other seriously, causing teachers to reject innovations without truly trying them, and often leading to teacher responses of fight, flight, or freeze, and consequently to emotional exhaustion and cynicism. Johnson et al. (2014) found pre-service programs do not prepare teachers for the demands of teaching, resulting in a severe disconnect between the idealistic classroom and reality. Additionally, quality induction programs are minimal, and school leaders are often too busy or unskilled to support their new teachers (Johnson et al., 2014).

The biggest impact on student achievement can be directly related to the effectiveness of the classroom teacher; however, that foundation starts with the early childhood teacher. In a 2011 report on early learning, the National Association of Elementary School Principals found only 69 percent of people nationwide get their high school diploma, and the achievement gap begins before students enter school. They also noted the likelihood of academic success can be increased through a high-quality early learning program. Shore (2009) also noted the importance of high-quality early learning as well as the importance of linking these programs to the subsequent elementary grades. However, Han (2014) found early childhood teachers are often not seen as true professionals, and their professional development options are not viewed as important as that of other educators. Furthermore, Gomez et al. (2015) stated professional development for early childhood educators tends to lack quality in its delivery, equitable distribution, and a lack funds for sustainability.

Identifying why teachers are leaving requires an in-depth look at what specific aspects of the job led them to give up a profession they have spent considerable time and energy to acquire. The theoretical construct behind this inquiry is two-fold. Job satisfaction can be linked to Locke's (1969) Range of Affect Theory. One's job satisfaction can be determined through an examination of situational occurrences, a static set of variables evaluated prior to taking the

position, and situational occurrences, a fluid set of variables that occur in the day-to-day interactions of the job (Quarstein et al., 1992). Other researchers point to Locke's range of affect theory in which the expectations one has for the job, along with the actual experiences, can affect job satisfaction (Hancock & Muller, 2014).

The second theoretical construct attached to this study is Bandura's (1977) self-efficacy theory in which one's self-efficacy is derived from how well one performs on tasks, interacting with others who appear to be effective, being praised, and the physical feelings one experiences when performing a task. Being confident in their effectiveness plays a key role in how much effort one puts into a task, one's persistence when setting and attaining goals, and one's persistence when faced with a difficult task (Bandura, 1994). Additionally, feeling supported and the presence of role models can affect one's self-efficacy. How one feels about one's ability to complete the tasks associated with one's job has been directly associated with one's job satisfaction (Yakin & Erdil, 2012).

Problem Statement

There have been many studies focusing on the self-efficacy and job satisfaction of school personnel. When studying school principals, multiple studies have confirmed a positive relationship between self-efficacy and job satisfaction (Helgeland, 2016; Nye, 2008). Alford (2018) found mixed results when comparing job satisfaction and self-efficacy of special education and general education teachers. Troesch and Bauer (2017) found second year teachers had higher self-efficacy, higher job satisfaction, and lower job stress than first career teachers. Perera et al. (2018) sought to determine if there were specific personality profiles for teachers and how those profiles related to efficacy, work engagement, and job satisfaction. While there

were four specific profiles identified, very distinct differences between self-efficacy and job satisfaction were found to exist across the profiles.

Studies focusing on the relationship between self-efficacy and professional development of teachers are plentiful. Durksen et al. (2017) studied the keys to effective professional learning and found positive correlations in motivation and collaboration, both strong factors in building positive self-efficacy. Yoo (2016) examined the use of an online professional development program in building self-efficacy and teacher self-reflection of efficacy changes, noting a tendency for teachers to overrate themselves due to confidence or underrated themselves due to uncertainty. von Suchodoletz et al. (2018) examined the role of professional development on teacher self-efficacy over multiple school years with positive correlations noted, especially for those teachers who participated in coaching as part of professional development. Guskey (1988) noted highly efficacious teachers tend to be more receptive to implementing new instructional practices. When exploring preschool teachers, Fisher and Seroussi (2018) found common factors associated with self-efficacy, including staff collaboration, decision-making influence, and student engagement.

Ingersoll et al. (2018) noted the teaching force has not only become larger in recent decades but also simultaneously older and younger and less experienced. While salary increases may attract more highly qualified individuals, it still does not improve the quality and productivity of the educational system (Hanuschek, 2015). Each of the studies discussed provides relevant discussions on the concept of self-efficacy and job satisfaction of school personnel and the role of effective professional development in predicting self-efficacy. However, an in-depth look at self-efficacy and professional development as predictors of job satisfaction has not been explored as noted in an online search of 4,500 peer-reviewed articles.

Furthermore, research has not focused on specific programmatic levels such as early childhood. Han (2014) noted early childhood teachers are often not viewed as true professionals with fewer opportunities than their peers. Hall-Kenyon et al. (2014) found a lack of data-driven, peer-reviewed studies specific to the early childhood teacher. King et al. (2016) also stated a need for further research in specific aspects of early childhood teachers' workplace to better support them.

Purpose Statement

The purpose of this quantitative correlational study was to determine if self-efficacy and professional development can predict the job satisfaction of teachers who serve pre-kindergarten classrooms within an eastern state. *Self-efficacy*, a predictor variable, is an individual's belief about what he or she can do (Bandura, 1977). *Professional development,* a predictor variable, is defined as structured professional learning for the purpose of changing teacher practices and improving student achievement (Darling-Hammond et al., 2017). *Job satisfaction*, the criterion variable, is the pleasurable feeling one gets from one's job when comparing what one expects from the job and what occurs (Locke, 1969). The population for this study was the Pre-K teachers from West Virginia.

Significance of the Study

While multiple studies showed a relationship between self-efficacy and job satisfaction (Cherian & Jacob, 2013; Federici & Skaalvik, 2012; Maggiori et al., 2016), noticeably absent is research targeting Pre-Kindergarten teachers, specifically those in any specific state. Therefore, this study is significant in adding to the body of research connecting the two concepts within a specific population. In addition, this study further adds to the reliability of the Teacher Self-Efficacy Survey (Tschannen-Moran & Woolfolk Hoy, 2001) and the Teacher Job Satisfaction Questionnaire (Lester, 1987).

State and district level administrators will also find this study significant. In a report published by the Learning Policy Institute, the focus area of this study had an 8.7% teacher turnover rate in 2013 (Sutcher et al., 2016), which is slightly higher than the national average. The estimated cost for replacing a teacher can reach $20,000 or more, especially for urban school districts, and districts often resort to hiring inexperienced or underqualified teachers to fill the gaps (Carver-Thomas & Darling-Hammond, 2017). Haynes (2014) stated that the retention of teachers is closely related to how good their first teaching experience is, highlighting the importance of quality professional development.

Teacher preparation and continuing education providers will also find the study useful. A positive correlation between the concepts of self-efficacy and job satisfaction and whether professional development could predict that relationship could be used to improve both teacher pre-service and in-service programs offered by institutions of higher education as well as teacher induction programs provided by state and district level education authorities.

Research Question(s)

The research questions for the study are the following:

RQ1: Is there a significant predictive relationship between the self-efficacy and job satisfaction of Pre-Kindergarten teachers?

RQ2: Is there a significant predictive relationship between professional development and the job satisfaction of Pre-Kindergarten teachers?

Definition of Terms

Job satisfaction: the pleasurable feeling one gets from one's job when comparing what one expects and what occurs from all aspects of the job (Locke, 1969; Peng & Mao, 2014; Quarstein et al., 1992). It is the function of two variables.

Pre-Kindergarten (Pre-K): an educational class for any child who is four years old by July 1 of the year the child is to enroll or any three-year-old child who has met the eligibility requirements for special education services (WVDE, 2017). Also known as preschool.

Professional development: structured professional learning for the purpose of causing change in teacher practices and improvement in student achievement (Darling-Hammond et al., 2017).

Range of Affect Theory: "suggests that one's satisfaction with a job depends on two factors – the expectations the person has for the job and the person's actual experiences in the job" (Hancock & Muller, 2014, p. 67).

Self-efficacy: an individual's beliefs about what he or she can do. It influences how one perceives opportunities and impediments that are experienced in daily living and affects cognitive, motivational, affective, and selection processes (Bandura, 1977, 1994; Federici & Skaalvik, 2012; Yakin & Erdil, 2012; Yeng & Mao, 2015).

Self-efficacy of the profession: beliefs pertinent to the specific job and that the job can influence others (Fisher & Seroussi, 2018).

Self-efficacy of the professional: beliefs in one's ability to make a difference and influence others (Fisher & Seroussi, 2018).

Situational characteristics: a stable variable that includes those facets of a job that are evaluated prior to employment such as pay, promotions, and working conditions. They are typically included in policy and procedure.

Situational occurrences: a fluid variable that includes the day-to-day activities within a job that are not discussed prior to employment. These may include how employees and supervisors treat each other, broken or faulty equipment, or amenities provided for daily use.

CHAPTER TWO: LITERATURE REVIEW

Overview

People are products of their environments. However, they are also producers of their

environments in that they can choose and change their circumstances (Bandura, 2000). Their

beliefs in what they can and cannot change have a strong effect on how they see and act

throughout their daily activities, including their work environment. The researcher sought to

determine if self-efficacy and professional development can predict the job satisfaction of pre-

kindergarten teachers. Chapter Two examines the theoretical framework of social cognitive

theory of Bandura, range of affect theory of Locke, and the motivation-hygiene theory of

Herzberg. It also includes a synthesis of the related literature pertaining to self-efficacy and job

satisfaction as well as their combined effect on teacher mobility and attrition and student success.

The role of professional development on professional resiliency was also explored.

Theoretical Framework

The theoretical framework for this study encompasses multiple theories. Self-efficacy is

grounded in the work of Albert Bandura's social cognitive theory and is the most predominant

theory explored in the research. Professional development also finds its foundations within the

social cognitive theory, and which leads to a strong connection between it and self-efficacy. The

theoretical framework for job satisfaction is divided between two theories: Edwin Locke's range

of affect theory and Frederick Herzberg's motivation-hygiene theory. Researchers who study job

satisfaction appear to be divided on which theory best supports the concept.

Social Cognitive Theory

The behaviorist learning model was the predominate theory of the 1950s with Ivan

Pavlov, John B. Watson, and B.F. Skinner as principal developers. The behaviorists believed that

behavioral responses could be determined and conditioned through environmental factors, and free will had no relevance on how and when a response occurred (Reimann, 2018). Skinner (1958) believed that any social situation could have positive outcomes simply by understanding who the reinforcer is, what they are reinforcing, and to what effect. While he agreed with the behavioral learning theories, Bandura diverged somewhat with his ideas on the input cognitive processes have on the decisions humans make (McLeod, 2016). Humans are not simply repositories for the actions that occur around and to them but are able to construct, select, and regulate them (Bandura, 1999).

The social cognitive theory is based on the premise that a person's belief system is the connecting factor between knowledge and action and determines one's behavior and motivation (Nye, 2008). The ability of humans to self-reflect gives them the unique capacity to evaluate and alter their actions and beliefs, and these alterations lead to different interactions within their environment. Bandura's concept of reciprocal determinism proposed that personal factors, behavior, and environmental influences interact within a triadic reciprocality (Pajares, 1996). Interpretations of results from an action lead to changes in personal factors and the environment subsequently causing changes to future behaviors. Through cognitive processes, people adapt their environment through three different structures. The imposed environment is one in which a person has no control over; however, through selection of who, how, and where one interacts, people create a selected environment, and these selected environments create a constructed environment where one chooses to participate (Bandura, 1999). The bidirectionality comes into play as the same factors that allowed one to create the environment also act as influencers on future actions. The capacity of people for learning through observation allows them to develop knowledge and skills through the information gained through their social interactions. This

creates yet another distinction between behaviorism and social cognitive theory, and that is the notion of human agency or personal efficacy (Bandura, 1999). As his research evolved, personal efficacy became more commonly called self-efficacy.

Self-efficacy is defined as the personal beliefs one has about his ability to perform at the desired levels necessary to influence other aspects of one's life (Bandura, 1994). These beliefs affect all aspects of human life, including motivation, goal setting, expectations, and perceptions. Self-efficacy beliefs are influenced by four major sources, including mastery experience, physiological responses, vicarious experience, and verbal persuasion (Tschannen-Moran & Gareis, 2004). Mastery experiences refer to the successes and failures one experiences and determines the amount of perseverance one exhibits when things become too hard. Physiological responses are the perception one has of bodily reactions to events, leading one to determine further action based on how one's body is feeling. Vicarious experiences affect self-efficacy through the observations of the actions of those one chooses to associate with. Positive influencers provide a goal to work toward while the failures of others provide learning experiences of what not to do. The verbal interactions with those around you further influence one's self-efficacy through positive or negative reinforcement. Bandura (2002) cautioned that we should not confuse outcome expectations with effectiveness of a technique as self-efficacy is a means to producing an outcome, not a guaranteed result. For example, a highly efficacious high jumper will believe he can make the state record jump. However, that is not a guarantee that he will succeed, just that he has the drive and motivation to try it.

Bandura (1994) further discussed the effects of self-efficacy on four life processes: cognitive, motivational, affective, and selection. Highly efficacious individuals are cognitively more capable of setting and reaching higher goals while being less likely to be deterred by

failures. They are highly motivated to pursue more strenuous tasks, exhibiting greater perseverance when faced with disappointments, and they are more confident in their abilities to take on and accomplish tasks of greater risk. Their high self-efficacy allows them to present a more positive outlook and regulate self-debilitating thoughts. Efficacious individuals tend to gravitate towards those who model success and can manipulate and adapt both events and their physiological reactions towards success (Alford, 2018).

The less efficacious individual tends to avoid events that do not bring them success and focus on the failures, both in their actions and their body's reactions. They are more vulnerable to stress and depression when experiences are less than optimal (Bandura, 1999). Bandura noted that self-efficacy affects depression in three ways: through unfulfilled aspirations, failure to develop social relationships, and lack of control over depressing thoughts. How effective one feels will determine if one even attempts to cope with a given situation (Bandura, 1977) and negatively affects recovery, leading to possible relapses and an iterative cycle of depressive thoughts and actions (Alford, 2018).

Bandura (2000) further explored the notion that one's self-efficacy can influence more than the individual. One can also manage events through proxy and collective agencies as well. Proxy agency is the action taken to exert influence over social conditions or institutional practices one does not have direct control over, usually through trying to get others who have the expertise and power to influence the situation on your behalf. Collective agency involves the production of results through the shared beliefs of a group of people. It is not the sum of the individuals but the interdependence of the group as a whole that produces results.

The choice of career and its subsequent development is also highly affected by self-efficacy (Bandura, 1999). Highly efficacious people consider a wider choice of options, prepare

better for the career, and have a stronger commitment to their jobs. In their meta-analysis of research pertaining to self-efficacy and employee motivation and work performance, Cherian and Jacob (2013) found that higher efficacy led to increased performance and productivity; however, a weaker link became evident with the increase in complexity of tasks, motivating the researchers to offer suggestions to lessen the weakening of the link. Bandura (2015) further noted employees with high self-efficacy take a greater initiative in their job development and actively generate ideas for work process improvement. Employees who are highly efficacious in their careers also are less stressed, have fewer physical concerns, and tend to respond positively to innovation and change.

Not all research has agreed with Bandura, and some have approached self-efficacy theory from different perspectives. Sitzmann and Yeo (2013) have suggested that self-efficacy is determined by past performances as opposed to affecting future performance. Vancouver (2012) also reported self-efficacy was dictated by past performance, and one's self-efficacy could be related to performance positively, negatively, or not all based on individual circumstances. Jackson et al. (2012) further suggested the research on self-efficacy should focus on how self-efficacy can be predicted by personality traits as opposed to how it relates to other constructs. Bledow (2013) further questioned Bandura's theory and suggested motivation was a steady change in self-efficacy beliefs as opposed to a constant. Dalal et al. (2014) emphasized a need to examine how good and bad performance of a given individual changed across different situations.

Self-efficacy has been a highly researched study in the field of education, including student efficacy (Bandura, 1993), teacher efficacy (Carney et al., 2016), principal efficacy (Federici & Skaalvik, 2012; Tschannen-Moran & Gareis, 2004), and collective efficacy

(Bandura, 1993). Each level of the educational hierarchy contributes to the self-efficacy of the subsequent layers. Education plays a key role in the development of children's cognitive abilities, which are directly related to self-efficacy. As students interact with their classmates and their teachers, they build skills for life-long learning. Teachers are the primary purveyors of cognitive development within the academic setting, and their own beliefs in what they can accomplish directly affects the self-efficacy of not only themselves, but the children they teach. In addition, teachers interact with each other in ways that influence their vicarious experiences and that of their colleagues. The implementation and persistence of reform-oriented instructional practices hinge on the level of efficacy teachers hold, and that self-efficacy has a correlating effect on student achievement. More efficacious teachers tend to have students who are more successful (Carney et al., 2016), and less efficacious teachers tend to have higher stress levels which affect job satisfaction and burnout (Yoo, 2016).

Professional development can also be supported by Bandura's social cognitive theory, especially as it links to building self-efficacy. As noted earlier, teachers with a high sense of self-efficacy are more likely to try new concepts and are more likely to see change as part of their development process (Guskey, 1998). Of the four sources of self-efficacy, mastery experiences, vicarious experiences, and verbal persuasion are the ones most reflected within professional development. Eun (2018) described the major models of professional development and their foundations in social cognitive theory. Training, one of the most widely used forms of professional development, provided teachers with enactive mastery experiences such as microteaching, and vicarious experiences through demonstrations. Observation and mentoring provide teachers with performance feedback as well as vicarious experiences as a less experienced teacher often is paired with an experienced one for an example and reflection.

Involvement in development/improvement process and study groups provide teachers with the opportunity to build collective efficacy. Research and individually guided activities are examples of self-regulated learning, a key concept in social cognitive theory. Finally, effective implementation requires not only providing opportunities for teachers to learn and grow but also helps them build strong efficacy beliefs through mastery and vicarious experiences as well as persuasive models. Durksen et al. (2017) also noted the connection between social cognitive theory and professional development, especially through vicarious experiences and affective states. Eun (2018) cautioned researchers to consider that while teachers may be highly knowledgeable, skilled, and efficacious, they will not act upon their knowledge if they perceive obstacles. Therefore, creators of professional development must include removal of obstacles if they want the work to be effective.

In their work on social cognitive career theory (SCCT), Lent and Brown (1996) drew a connection between Bandura's social cognitive theory and the processes by which people develop their careers. SSCT builds on Bandura's triadic reciprocal model in which choices are influenced by the interactions between a personal attributes, external environment, and behaviors, and a person's career choices are strongly influenced by these interactions. Lent and Brown (1996) focused their work on three interlocking models: interests, choices, and performance processes and the role of social cognitive variables in guiding career development. Interest in activities have known to begin as early as childhood and can develop into enduring interests as the participant becomes competent and earns the desired outcome when performing the activity, thus building self-efficacy (Lent et al., 1989). Career choices build from interests, especially when one can perform preferred activities with other like-minded individuals, and a supportive environment will increase the likelihood of one setting career-minded goals and

completing them (Lent et al., 1989). Performance processes further influence career development through a feedback loop. In other words, as one completes a task and receives feedback, self-efficacy is built or diminished which, in turn, affects performance goals set by the individual.

Bandura's social cognitive theory has proven to be a solid base for building self-efficacy of teachers, who in turn, will build the efficacy of their students and their schools. The use of professional development has the potential to increase the self-efficacy of teachers and the collective efficacy of schools, creating an avenue for increasing student achievement. As student achievement increases as a result of implementation of concepts learned in professional development, teachers are more likely to continue to reflect and look for additional ways to learn, often through professional development, creating a continuous cycle of learning.

Range of Affect Theory

The concept of motivation was not considered to be a respectable study topic by the behaviorists of the 1950s and 1960s with only reinforcers and punishers being seen as the change agent for behavior modifications. In their summation of 35 years of research on motivation and goal-setting, Locke and Latham (2002) documented the early research leading up to formal recognition of motivation: McClelland was the first person to identify internal motives, but he thought they were rooted in the subconscious; Ryan was the first to explore the idea of first-level explanatory concepts in which human behavior was consciously thought about and planned; in their work of the early 1940s, Lewin, Dembo, Festinger, and Sears explored aspiration but saw it as a dependent rather than independent variable; and Mace, a British researcher looked at effects of goal type on task performance. Through this exploration of the research and their interest improving organizational performance came further studies on goal setting and motivation, all of which play an integral part in job satisfaction.

Kumar and Singh (2011) define job satisfaction as the result of how well an employee's job provides what he feels is important while performing said job. It encompasses all components of the job, also known as job facets (Rice, Gentile, et al., 1991) and includes such things as pay, work environment, coworkers, promotions, and so forth. To determine satisfaction or dissatisfaction, one must make a value judgement between what one wants from and get from a job facet along with how important that facet is to an individual (Mobley & Locke, 1970). The importance of the job facet plays a huge role in just how satisfied or dissatisfied one is which leads to the range of affect theory. If a job facet holds high personal importance to a person, then the discrepancy between the amount wanted and the amount received can cause a reaction anywhere on the continuum between highly satisfied and highly dissatisfied (Rice, Markus, et al., 1991). Conversely, a job facet of low importance will elicit more neutral responses on the continuum, neither very satisfied nor very dissatisfied. The highest satisfaction comes when facets of high importance meet the job holder wants, and the highest dissatisfaction comes when facets of high importance fall short of or exceed the wants of the holder (McFarlin et al., 1995). Overall job satisfaction comes about through the sum the evaluations of the individual job facets (Locke, 1969). One important point Locke (1969) wanted to note was that the range of affect scale would not be a set scale applicable to everyone as the values for each job facet were governed by the value held by the individual.

Locke's range of affect theory has been the popular basis for much of the research on job satisfaction. However, Rice, Markus, et al. (1991) noted at the time of their research, very little had been done to test Locke's theory. Since then, additional studies have focused on facet importance in job satisfaction (McFarlin et al., 1995; Rice, Gentile, et al., 1991; Wu & Yao, 2006). A Google Scholar search of "range of affect theory" produced 303 results covering

studies across a wide range of organizational types, including education. Most of those studies focused primarily on the school principal and looked at specific job facets in relation to overall job satisfaction (Darmody & Smyth, 2016; Hancock & Müller, 2014; Liu & Bellibas, 2018; O'Conner, 2018; Oplatka, 2017; Wang et al., 2018). All these facet studies have led to a greater understanding of the concept of job satisfaction. However, when considering that each job is different, and individuals place different values on different facets the research possibilities appear to be almost endless.

Motivation-Hygiene Theory

Frederick Herzberg is considered the originator of the motivation-hygiene theory. A self-proclaimed humanist, Herzberg conducted a comprehensive review of the literature on the attitudes and satisfaction of people within their jobs (Miner, 2005). Through this study he noticed a difference in the variables that led to satisfaction as opposed to those that led to dissatisfaction, and he conducted further research to verify what would become the motivation-hygiene theory (Sachau, 2007). Centered on motivation with contemporaries such as Maslow, Herzberg's theory continues to be studied as it relates to motivation (Graham & Messner, 1998).

Herzberg's hypothesis was that certain work factors led to satisfaction while others led to dissatisfaction (Alshmemri et al., 2017). Herzberg (1974) went on to identify the factors that satisfy an employee as motivators while those that dissatisfy are hygiene factors, specifically because they represent work conditions that are environmental and preventative in nature. Table 1 describes the factors within each category.

Table 1

Herzberg's Motivation-Hygiene Factors

Motivating factors (satisfiers)	Hygiene factors (dissatisfiers)
Achievement	Company policy
Recognition	Supervision
Work itself	Salary
Responsibility	Interpersonal relationships
Opportunity for advancement	Working conditions

Note. Adapted from Graham and Messner (1998).

The biggest difference in the two, according to Herzberg, was motivator factors promoted psychological growth within the job while hygiene factors revolved around physical and psychological pain avoidance (Sachau, 2007). With the presence of motivators, an employee's needs would be met, leading to positive feelings, improved performance, and organizational success. On the other hand, hygiene factors can remove dissatisfaction and improve performance to a certain extent when meeting the employee's needs; however, in order to improve overall job satisfaction and levels of performance, employers have to focus on providing more motivators (Miner, 2005).

This theory has been a predominant one throughout studies on job satisfaction and work motivation; however, it has had its critics. Some found his theory had too many interpretations, making it difficult to test while others felt his methodology was too biased (Sachau, 2007). Graham and Messner (1998) pointed out that the theory was methodologically bound, prone to rater contamination, lacked a measure of overall satisfaction, and did not take into account situational variables. Herzberg's theory assumed that all employees and all situations were alike

and there was only one way to describe it (Graham & Messner, 1998). Locke (1969) also found fault with Herzberg's work in that the work factors can only cause job satisfaction and not dissatisfaction while extrinsic factors can only cause dissatisfaction and not satisfaction. Even with the critics, Herzberg's theory was very appealing to researchers who were trying to reverse the work of scientific management, and it became a predominant theory throughout the 1960s and 1970s (Miner, 2005). While mostly researched in the industrial field, Graham and Messner (1998) cited multiple studies on job satisfaction in education, specifically pertaining to school principals. Crisci et al. (2019) explored the concept of job satisfaction of teachers in Naples, Italy, in which they identified six factors affecting job satisfaction. In addition, the researchers noted the work of Sergiovanni (1967) in applying Herzberg's two-factor theory to teachers, confirming his work and adding additional weight to the factors with the largest effect: motivation, personal achievement, recognition, and responsibility (as cited in Crisci et al., 2019).

Related Literature

Teacher Self-Efficacy

Research focusing specifically on the early childhood teacher was not as prevalent as those studying teachers in general. Epstein and Willhite (2015) examined efficacy of teachers in an early childhood professional school in the Midwest, a collaborative environment in which teachers were placed with mentor teachers for the year. While the participant rate was fairly low, the researchers did find the teachers had strong efficacy beliefs across instructional and management aspects but weaker confidence levels when assisting parents with helping their children succeed. Fisher and Seroussi (2018) also looked at preschool efficacy, specifically to define professional efficacy, preschool success, and determine if there was a relationship between the two. They found that teachers with their own children tended to feel (a) more

qualified at work, (b) more experienced teachers tended to be more efficacious, and (c) the more preschool staff members at the school, the higher the efficacy of the teachers. Additionally, the researchers noted the efficacy of the teachers was a predictor of the definition of preschool success, a unique finding as noted in the study. Whynacht (2004) noted that teacher self-efficacy scales existed for elementary and secondary teachers but not preschool, and her study set out to create one. Starting with a 121-item survey, the researcher utilized multiple settings to garner participant feedback and after extensive testing was able to provide a final 36-item survey with four factors: (a) efficacy for working with children with varying abilities and needs, (b) efficacy for working with children with difficult home situations, (c) efficacy for child-centered development, and (d) efficacy for collaboration. While the researcher completed the study, no other studies could be found that utilized her scale which indicates a lack of reliability.

An offshoot of teacher self-efficacy is the concept of resiliency. It occurs when a teacher is faced with adversity and can adapt positively (Clara, 2017). Mansfield et al. (2016) further pointed out that resilience can be conceptualized in three ways: as a capacity, which is the process by which a teacher uses his personal and contextual resources to overcome a challenge; as a process, which are the interactions between teacher characteristics and personal and professional contexts over time; and as an outcome, which is the experience gained through growth, commitment, satisfaction, and well-being. In a study of graduating and early career teachers, Mansfield et al. (2012) found that resilient teachers possess a set of characteristics that are multi-dimensional and overlapping, and the career stage of the teacher affects perception of resiliency. Furthermore, Mansfield et al. (2012) also noted resilience could be conceptualized into four possible dimensions, including profession-related, emotional, motivational, and social. In a study focused on how teacher reappraise an adverse situation, Clara (2017) found that an

adverse situation is often an accumulation of events over time, and reflection and social interactions play a key role in building teacher resilience. Factors important for teacher resilience are personal resources which revolve around the themes of motivation and emotion, contextual resources which include the relationships made in and outside of the work environment, strategies focused on problem-solving and maintaining a work-life balance, and the outcomes that result from teacher resilience (Mansfield et al., 2016). In a study focused on STEM teachers, researchers found building adaptive capacity allows teachers to be more resilient and focuses their attention reducing vulnerabilities to specific threats (Wright et al., 2019). In a study of teachers in Quebec, Lerouz and Théorêt (2014) emphasized the importance of building teacher resilience through reflection and a focus on solutions as opposed to the problems, especially through professional development. Gibbs and Miller (2014) examined the effect of children's behavior on teacher resilience, and they found a positive link between the efficacy of a teacher to management classroom behaviors and teacher resilience.

Job Satisfaction

Locke (1969) referred to a job as a combination of tasks performed in a specific context in return for some form of renumeration, and the sum of the evaluations of all parts of parts of the job determine overall job satisfaction. Job satisfaction is defined as the positive feeling one gets when one's job meets the expectations (Locke 1969). There are three dimensions to job satisfaction: (1) an emotional response to a situation, (2) determined by the outcome's level of meeting expectations, and (3) represent attitudes towards the importance of the aspect of the job (Kumar & Singh, 2011). Locke further pointed out that job satisfaction or dissatisfaction is not caused by the job itself or the individual but in the relationship between the two.

The research presents several theories that have been used to explore the notion of job satisfaction. The satisfaction of any given job facet can be determined by the have-want discrepancy which is the perceived gap between what the worker wants from the job and what he experiences. Locke's (1969) range-of affect hypothesis explained the potential range of satisfaction or dissatisfaction each facet can elicit. When the facet is important, a worker can experience from extreme satisfaction to extreme dissatisfaction. When the facet importance is low, a more neutral affect is achieved. Hackman and Oldham (as cited in Quarstein et al., 1992) suggested that job satisfaction is determined by task variety, task identify, task significance, task autonomy, and feedback. Quarstein et al. (1992) also explore the concept of situational occurrences theory in which job satisfaction is determined by situational occurrences and situational characteristics. Characteristics are those aspects of a job evaluated (e.g., pay, working conditions, policies, etc.) when looking for a job, and occurrences are those aspects that occur while on the job, such as unexpected incentives and improvements in the workplace environment. The motivation-hygiene theory presented by Herzberg (1974) is yet another theory surrounding the study of job satisfaction. In this theory, what satisfied people are the factors that relate to the content of the job and pertain to achievement, recognition, and growth or motivation factors. What dissatisfies people are factors that relate to the context of the job and refer to those aspects that affect how they are treated or hygiene factors. Motivation factors are intrinsic to the job, and hygiene factors are extrinsic to the job (Alshmemri et al., 2017).

Job satisfaction has been studied extensively in a variety of settings. In a survey of certified public accountants, Yakin and Erdil (2012) found self-efficacy and work engagement had a strong connection to job satisfaction. Singh and Sinha (2013) found job satisfaction was high among organizational executives with the need for achievement and need for influence

more satisfied than other factors examined. In a study focusing on the turnover intention of nurses, DeSimone et al. (2018) found job satisfaction had a strong effect on both the turnover intentions and patient satisfaction. Borgogni et al. (2013) studied the role of self-efficacy and job satisfaction on the absences of white-collar workers at an Italian delivery company and discovered a link between self-efficacy and job satisfaction as well as an indirect link with absences from work.

Studies exploring job satisfaction in the education field abound, but those focusing on the preschool teacher were much fewer in numbers. However, all studies provided similar results to those conducted in non-education settings. In a study exploring the association between teachers' child-centered beliefs and work climate and job satisfaction, Hur et al. (2016) found teachers who perceived higher levels of influence and collegiality had higher job satisfaction, in turn influencing their child-centered beliefs. Teacher influence beliefs also indicated lower stress levels. Interestingly, the study showed teachers with higher stress also had higher child-centered beliefs, causing researchers to question how they measured job stress. Also noted was the notion that teacher stress could be an indicator of how committed they are to their jobs and their students. In a second study, Jeon et al. (2016) sought to identify preschool teacher quality profiles using a person-centered approach, examining professional background, process quality, and job attitudes. Results indicated three profiles: (a) less experienced, lower quality, and more positive attitudes; (b) less experienced, average quality, and less positive attitudes; and (c) more experienced, better quality, and mixed attitudes. Overall, teachers with more experience were more satisfied and had higher quality, and teachers with the more positive attitudes were more likely to have lower salaries. Of interest to the researchers was the fact less experienced teachers with lower quality were also the least stressed and the most satisfied, causing them to consider

teachers at this level may not realize a lack of competence at this point in their careers. When exploring perceptions of the school environment in relation to job satisfaction, Lee and Quek (2018) found significant differences in Singapore preschool teachers' perception of the current environment and their ideal environment. Additionally, they noted high-quality environments involved strong collegial relationships, a professional learning culture, and strong student support from administrators. In a review of recent literature concerning the well-being of early childhood educators, Cumming (2017) noted well-being is affected by more than individual teacher responses to demands and resources; the well-being of others within the school setting also affect the individual well-being.

In a new study focused on the relationship between working conditions and well-being to turnover intentions, Grant et al. (2019) found early childhood teachers who were more intrinsically motivated were less likely to leave while more emotionally exhausted teachers and teachers reporting lower working conditions were more likely to leave. Carswell's (2018) study of the relationship between job satisfaction and self-efficacy of general education teacher and special education teachers also demonstrated a connection between the two concepts; however, there was a difference in the relationship of efficacy for student engagement with job satisfaction with special education teachers having no correlation as compared to the positive correlation of their general education colleagues. While not directly related to early childhood, this study was of particular interest due to the special education component. Early childhood classrooms often encompass inclusive environments with special education students. In a study focused on Head Start preschool teachers, Wells (2017) found teachers were more likely to quit teaching if they lacked support from their center directors and co-teachers, especially when dealing with student behavioral issues and paperwork completion.

Connecting Self-Efficacy and Job Satisfaction

Self-efficacy and job satisfaction have been connected through a multitude of studies. Some focus on specific aspects of the job while others draw connections between specific worker behaviors and their occurrences based on job satisfaction. While the approaches are varied, they all agree that self-efficacy affects job satisfaction. Workers with a higher self-efficacy are less likely to resign, work harder, are more persistent, and are more confident when dealing with challenges (Peng & Mao, 2014). Supporting Hackman and Oldman's Job Characteristics Model, Judge and Klinger (2015) found the intrinsic motivator of mental challenges was a positive predictor of job satisfaction. Exploring the impact of person-fit on job satisfaction, Peng and Mao (2014) found that worker self-efficacy was higher when they were placed in job that best accentuated their strengths, promoting confidence within the work setting. A study of Taiwanese nurses found that those who utilized problem-focused coping skills positively interpreted work stress, had better physical and mental health, and had higher job satisfaction; on the other hand, those who utilized emotion-focused coping skills exhibited negative job satisfaction and had higher levels of psychological disturbance (Chang & Edwards, 2015).

Within the field education, more studies have focused on teacher self-efficacy and its effects on job satisfaction. They too are in agreeance with the concept of self-efficacy and job satisfaction being related. Karabiyik and Korumaz (2014) found a significant and positive relationship between the self-efficacy and job satisfaction of teachers in Turkey, and they determined a negative correlation between self-efficacy and job satisfaction in relation to personal characteristics such as age and gender. The higher self-efficacy of second career teachers contributed positively to their job satisfaction (Troesch & Bauer, 2017). Curiously, this same study found that general self-efficacy was higher as it pertained to job stress than that of

first career teachers, highlighting the importance of mastery experiences towards developing

self-efficacy. Skaalvik and Skaalvik (2017) found when studying perceived school goal structure

that teachers who perceived a learning goal structure were less motivated to leave the profession,

indicating a higher job satisfaction and self-efficacy. Teachers who perceived a performance goal

structure, however, indicated a higher motivation to leave which was associated to time pressure

and emotional exhaustion. The effects of teacher personality on job satisfaction were also found

to be positively mediated by self-efficacy (Li et al., 2017; Perera et al., 2018) with proactive

personalities being more apt to seek solutions to problems and continue to look for applicable

solutions to problems. In a review of the literature relating teacher self-efficacy and job

satisfaction, Zee and Koomen (2016) added weight to the notion that both concepts were

positively related.

Professional Development

Professional development, also known as staff development, has been a consistent part of

the educator's world since the early 19th century (Richey, 1957). Guskey (1986) defined staff

development as a systemic approach to bring about change in teacher practices, beliefs, and

attitudes and change in student learning outcomes, and it is a central component for almost all

improvement plans in educational settings. Bayar (2014) indicated there are two types of

professional development: traditional usually involves workshops and conferences, and

nontraditional usually involves forms of mentoring, coaching, and peer observations. Durksen et

al. (2017) further delineated professional development as activities arranged for teachers as

opposed to professional learning which places the responsibility and focus for learning on

teachers and their needs. No matter what form it takes, professional development is a regular part

of teachers' lives.

While researching professional development, most studies focused on what effective professional development looks like. Bayar (2014) found effective professional development consisted of activities that matched teacher and school needs, involved teachers in planning, involved active participation, was long term, and had high-quality instructors. When reviewing studies that focused on professional development in early childhood programs, Schachter (2015) found providers should draw from multiple resources when designing professional development, diversify the content targeted by professional development, utilize innovative formats for delivery, and create better ways to evaluate professional development. In their report for the Learning Policy Institute, Darling-Hammond et al. (2017) defined effective professional development as structured learning that produces results and included seven shared features: is content focused, incorporates active learning, is collaborative, models effective practice, provides coaching and support, includes feedback and reflection, and is sustained. In her study on how professional development helps teaching, Kennedy (2016) examined 28 studies that focused on professional development for a minimum of one year, had evidence of student achievement, and focused on the teachers as opposed to the students, and she noticed four prevalent features: (a) a focus on content knowledge when it was absorbed within a broader goal, (b) collective participation when the work engaged in was focused, (c) program intensity when prescriptive messages were excluded, and (d) use of coaches when they moved beyond just observations.

Linking professional development to specific teaching concepts was the focus of multiple studies. Nishimura (2014) studied the relationship between professional development focused on inclusive schooling. While the study was limited in participants, it did further confirm the importance of coaching within professional development and showed an increased appreciation

for inclusive teaching practices. Nishimura (2014) also noted that traditional "sit and get" (p. 37) professional development was not effective in changing teacher attitudes about inclusive schooling. Allen and Penuel (2015) focused their study on teachers' response to professional development based on new science standards and the sources of ambiguity and uncertainty that affected their implementation of the standards. They found collaborative, sustained sensemaking to be a contributing factor in helping teachers understand and build coherence between the standards, curricular materials, and school and district expectations. Jensen et al. (2017) focused on preschool teachers and professional development, specifically in increasing the socio-emotional outcomes of social disadvantaged students. This multi-year study conducted in Denmark presented additional training to teachers in intervention schools and comparing the results to control schools. Significant improvement in emotional development and a reduction in emotional and behavioral problems were evident in the treatment group; however, the results were not significantly higher in the socially disadvantaged students as hypothesized. Schachter (2015) reviewed 73 studies on professional development of early childhood educators, focusing on subject of instruction, delivery mechanism, and outcomes measured. She found a majority focused on language and literacy instruction; coaching evident in over half of the studies; and outcomes measures for changes in teacher knowledge, teacher practice, children's learning outcomes, and children's behavior.

Learning Through Professional Development

Several researchers explored the concept of how teachers learn during professional development. To that effect, multiple models of what teacher professional growth looks like have emerged. In his research on educational change, Fullan (2005) pointed out that most professional development programs have as their goal improved student outcomes. Changes in teacher beliefs

and attitudes lead to changed classroom practices which lead to improved student outcomes. Guskey (1986) felt the goal of professional development was to change teacher beliefs and attitudes. As teachers changed their classroom practices, student improvement occurred, and only then did teacher beliefs and attitudes change.

While the previously described models provide foundations for professional development, they both represent a very linear approach to teacher learning. Clarke and Hollingsworth (2002), however, suggested a more interconnected model of learning in their research. In this model professional growth is seen as a continuous learning process in which changes in one domain lead to changes in another. However, changes do not occur in only one direction but can shift back and forth between domains through the mediating processes of enaction and reflection. Enaction is the process of putting a new idea, belief, or practice into place, and reflection is the thoughtful consideration of that action (Clarke & Hollingsworth, 2002). The researchers went on to examine how to measure the change in teacher growth and distinguished between two types. Change sequences are short-term and encompass two domains and their reflective or enactive links along with data supporting the occurrence of a change. Growth networks are change sequences that have led to continuous refinement of practice and long-term changes in professional beliefs and knowledge. To this end, Clarke and Hollingsworth (2002) suggested a change in the goal of professional development from something that is done to teachers to one in which teacher learning is the ultimate focus. See Figure 1 for a visual comparison of each of the three models described.

Figure 1

Models of Teacher Professional Learning
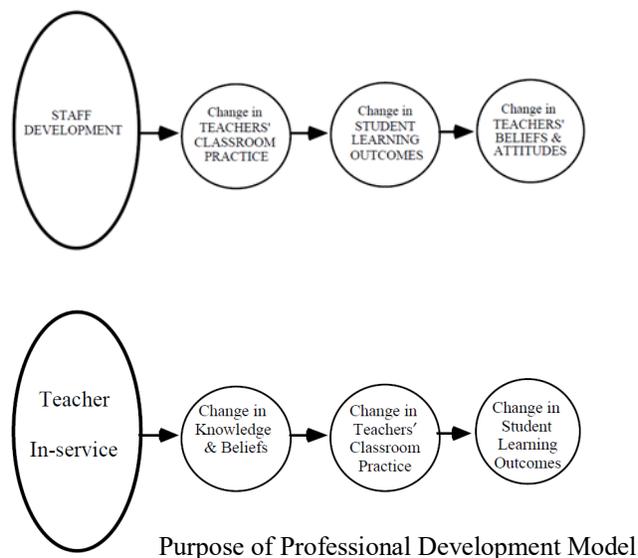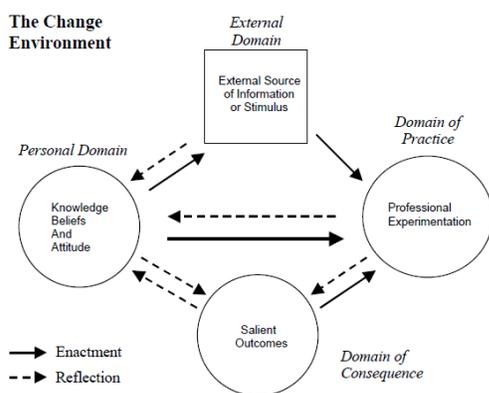
Note. Adapted from Clarke & Hollingsworth, 2002.

While agreeing with the learning model of Clarke and Hollingsworth, Evans (2014) suggested their research did not go far enough to examine how teachers learn. To fully understand, one must move beyond a focus of only changing behaviors and include shifting teacher attitudes, intellectual capacity, and mindsets. Understanding the mental internalization processes that occur as teachers "find a better way of doing things" (p. 187) is a key component and can occur incidentally and often accidentally as part of a teacher's daily interactions. Therefore, educational leaders need to understand professional development is not always about

planned activities but is also about those minute happenings that occur as natural occurrences throughout the day.

Other researchers have also looked at how teachers learn during the professional development process. Adger et al. (2004) studied how preschool teachers acquired new literacy knowledge and supported the notion that learning for adults is also a social activity that can be built through conversations. Teachers bring a wealth of experiential knowledge to discussions built around learning-related discourse, including focused questioning and examination of student work. Borko (2004) moved beyond the learning of a single teacher or small group of educators to a more wide-spread approach. Research was divided into three phases. Phase one focused on one professional development program at a single site, and it was noted the learning of teachers can be just as slow and uncertain as it is for students; however, collaborative conversations were key in building teacher knowledge. Phase two examined a single professional development program implemented at multiple sites, and phase three focused on multiple professional development programs implemented at multiple sites, neither of which could be found to produce substantial evidence of their success.

Professional Development Linked to Self-Efficacy

Multiple studies have focused on the use of professional development in building self-efficacy and teacher resilience. Durksen et al. (2017) examined data from year two of a multi-year mixed methods project focusing on professional learning and teacher self-efficacy. The study found professional learning that included collaboration was the most influential in building teacher self-efficacy, and teachers who are more highly efficacious were also more likely to be engaged in their learning, and in turn building their students' learning. Durksen et al. (2017) also found high self-efficacy in teachers with more years' experience and teachers in elementary

schools, and while teachers are open to a wide range of professional learning, they prefer opportunities where they get to work with colleagues which also builds teacher resiliency. Primary teachers from six schools in the Netherlands participated in a study by Zwart et al. (2015) which focused on professional development based on the "Quality from Within" (p. 580) approach. Through this approach, professional development focused on five main parts: building on participant needs, practicing with their own students, personal reflection, transfer through coaching pairs, and engagement at the team and school levels. Results confirmed the researchers' hypotheses, showing that professional development was more effective when it connected to personal values and was in sync with the work environment.

In a 2009 study, Tschannen-Moran and McMaster examined the relationship between specific types of professional development and teacher self-efficacy when implementing a new reading strategy. Using a quasi-experimental design, the researchers placed teachers into four treatment groups, each presenting the new teaching strategy in a different way: information only; information and modeling; information, modeling, and practice; and information, modeling, practice, and coaching. Self-efficacy and implementation of the strategy were also assessed. Tschannen-Moran and McMaster (2009) found that while the first three treatments showed modest gains in self-efficacy, they did not show a positive gain in implementation. Treatment four, which included an authentic mastery experience, proved to be the most influential in self-efficacy and implementation, further highlighting the importance of collaboration and coaching within professional learning. Studying the effects of online professional development on teacher self-efficacy, Yoo (2016) found efficacy did increase as a result of the online experience. The study also included a reflective piece which provided deeper insight into the fluctuations of efficacy change as teachers completed the course. Carney et al. (2016) also examined the

relationship between self-efficacy and a math professional development program with a significant difference being the program was instituted state-wide and was a mandatory requirement of teachers. Positive correlations were found between attendance in the program and improvements in knowledge, self-efficacy, and influencing beliefs. One point of note, however, was the notion of such a large-scale, mandatory program proving positive results, and the researchers attributed this to the small population of the state in question as well as the common knowledge base built using cohorts. One limitation of repeating this study was larger size communities may not have the same results due to implementation and quality-control issues. In an extensive study set in England, Ovenden-Hope et al. (2018) explored the effects of a research-based, continuing professional development program on the retention of early career teachers with positive results.

Recent years have shown multiple studies focused on early childhood educators. Múñez et al. (2017) examined the relationship between professional development and self-efficacy beliefs of preschool teachers in Singapore. Findings showed teachers engaged in informal professional development more often than formal professional development, and frequency of professional development and perceived usefulness were also positively correlated. Additionally, high engagement in either form of professional development was a strong predictor of positive self-efficacy beliefs, further confirming previous study results. Sandilos et al. (2018) studied the notion that the influence of teacher stress on teacher-child interactions could be reduced through a 14-week professional development course for prekindergarten teachers. The researchers found teachers in the control group with higher professional stress made less progress in emotional and instructional support than their control colleagues with less professional stress. Teachers in the course group, however, made greater gains in instructional support as a result of the professional

development. A longitudinal study focused on growing teacher self-efficacy beliefs through professional development indicated a positive correlation between professional development, especially that with a coaching component, and teacher self-efficacy beliefs. Teacher ratings of child behavior, however, had a negative effect on self-efficacy beliefs, further highlighting the need to provide teachers with professional development focused on their efficacy needs (von Suchodoletz et al., 2018).

Professional Development Linked to Job Satisfaction

Research linking professional development to job satisfaction has been studied extensively in professions outside of education. O'Leonard and Krider (2014) estimated corporate American spends an estimated $15 billion yearly on leadership training, and Conger and Fulmer (2003) noted this is in direct contrast to the educational realm. Picchio and van Ours (2013) noted companies who provide on-the-job training significantly increased the opportunities for employees, especially for older workers. Tabvuma et al. (2015) noted orientation training had a significantly positive effect on new employee job satisfaction in both the public and private sectors.

Studies focusing on educators covered a variety of aspects of professional development and job satisfaction. In their study of university administrators, Morris and Laipple (2015) found only 20.5% of those surveyed felt satisfied with their jobs each day with the biggest indicator of dissatisfaction stemming from a lack of leadership training. Hoekstra (2014) examined the effects of training on job satisfaction of online faculty members. Contrary to research, however, this study did not show a correlation between the two concepts, which the researcher noted was most likely due to not including all training options that were available to the participants at the

time. Pedersen (2017) studied educators at the University of Tasmania and noted the use of collaborative peer learning to sustain professional development led to higher job satisfaction.

Helms-Lorenz et al. (2018) noted novice teachers who worked in professional development schools were more highly satisfied than those who did not, confirming the importance of aligning the teacher preparation program with real classroom experiences. In a review of Trends in International Mathematics and Science Study data, Song et al. (2018) found professional development was positively correlated with job satisfaction. Song and Mustafa (2015) focused their study on the science teachers in Texas and found the more professional development provided the higher the job satisfaction. In separate studies, Whitehead (2006) and Hall (2007) both found the relationship between job satisfaction and professional development to be statistically significant.

Some studies drew indirect connections between job satisfaction and professional development, specifically as it pertains to professional commitment. Shukla (2014) noted one of the key components of professional commitment was a strong desire for professional development, and in a study of primary teachers in one city in India a positive correlation was found between job satisfaction and professional commitment. In a study of secondary teachers in Punjab, researchers also found a positive relationship between job satisfaction and professional commitment (Akram et al., 2015).

Teacher Attrition

With economic recovery after the Great Recession, teacher shortages began to plague districts and states nationwide. To determine the extent and sources of the shortages, Sutcher et al. (2014) conducted a nationwide analysis of the data. They defined shortages as the inability to hire qualified teachers in the fields needed at current wages. Furthermore, they predicted annual

teacher shortages to grow to 112,000 by 2018, 300,000 by 2020, and 316,000 by 2025, and they found four main factors driving these numbers: decline in teacher preparation enrollment, increasing student enrollment, high teacher attrition, and district desires to lower pupil-teacher ratios. Cowan et al. (2016) agreed enrollment in teacher preparation programs have decreased. However, in their examination of teacher enrollment data in comparison to those actually hired, they found only about one-half of graduating teacher candidates get hired in public schools, creating a slightly different picture than the previously mentioned research. The two studies did agree in the overall shortages such as special education and STEM. When considering both reports, however, the numbers presented a staggering reminder that changes at the state and national level need to be considered to counteract teacher shortages.

In a second research study for the Learning Policy Institute, Carver-Thomas and Darling-Hammond (2017) defined teacher attrition as teachers leaving the profession, accounting for 90% of the annual demand for teachers. Furthermore, they found that less than a third of the attrition rate was due to retirement, creating a nationwide dilemma. Teachers who move between schools, they found, have the same effect as if they left the profession altogether. They also noticed the highest turnover rates were in the South, Title I schools, schools with highest concentration of students of color, and with teachers of color. Reasons for leaving were testing and accountability pressures, lack of administrative support, dissatisfaction with career, lack of advancement, and working conditions. The researchers also included suggestions for enhancing teacher retention, including the importance of high-quality mentoring and induction programs for teachers.

Other researchers also examined teacher turnover in a variety of contexts. Redding and Henry (2019) examined North Carolina early career teacher turnover that occurred during the

school year and found a six percent rate of movement with traditionally trained teachers more likely to move schools and alternate certification and out-of-state trained teachers more likely to leave during and at the end of the year. Another study focused on North Carolina teachers looked at the difference between teachers trained within the state and those hired from outside, and they discovered teachers prepared out-of-state underperformed their in-state counterparts in both elementary reading and math (Bastian & Henry, 2015). Gallant and Riley (2014) found early career teachers exiting the profession is a process and not an event, and they go through four stages: entry in which they are very optimistic, early experiences reflected by blocked growth and no progress, pre-exit characterized by a sense of disillusionment, and exit. Furthermore, they found this process occurred most frequently around two to two and half years of experience with lack of emotional support and school cultures that impede growth being the two biggest factors for leaving. In a study of teacher turnover of Head Start teachers in the Midwest, Wells (2015) found teachers resigned for multiple reasons, including lack of desire to stay in early childhood, unhappiness, poor relationship with supervisor, unhappy with work environment, or had a lower education than those who stayed on the job. In addition, the researcher noticed the more risk factors a teacher had, the more likely he was to quit.

One study stood out in its examination of the positive effects of teacher turnover. Adnot et al. (2017) looked at District of Columbia Public Schools' performance assessment and incentive program and found that lower-performing teachers were more likely to leave under this program, positively increasing student achievement. Hanuschek et al. (2016) questioned why student achievement still did not improve with the exit of under-performing teachers, and they discovered that any turnover within lower-achieving schools had a negative impact as these schools tended to lose their most effective teachers as well.

Summary

The connection between teacher self-efficacy and job satisfaction is a relevant study to consider. How well the teacher perceives his ability to conduct his responsibilities directly affects the satisfaction he retains from his job. Highly efficacious teachers tend to be more satisfied with their jobs, and in turn, able to handle the responsibilities that come with it. Teacher efficacy also affects the efficacy of the students, which in turn affects their achievement. In addition, highly efficacious teachers tend to build collective efficacy through collaboration and reflection, which in turn builds more effective schools. Furthermore, effective professional development builds the efficacy of teachers and successful implementation of new instructional strategies, and again positively affecting students. With the changes in policies and reforms, more challenging student populations, and more frequent battles for equitable pay, studies are showing an increase in the turnover and mobility of teachers. This directly affects ability of a school to sustain effective change initiatives and, more importantly affects student achievement. When considering the diminishing workforce and the lack of people entering the field, it would behoove researchers to delve deeper into what specific characteristics of the teacher's job are key determiners in the motivation to leave the profession as well as where professional development might play a role. With further research, human resources and educator preparatory programs could explore the changes needed in our systems to sustain a work force for the benefit of our students.

CHAPTER THREE: METHODS

Overview

The purpose of this study was to determine if self-efficacy and professional development are predictors of the job satisfaction of pre-kindergarten teachers within an eastern state. Chapter Three includes a discussion of the study design, the research question, null hypothesis, participants and setting, instrumentation, procedures, and data analysis.

Design

A quantitative correlational design was used to determine if the predictor variables of self-efficacy and professional development are predictors of the criterion variable of job satisfaction of pre-kindergarten teachers in West Virginia. A correlational design explores the relationship between two or more variables on strength and direction (Gall et al., 2007) as opposed to controlling or manipulating the variables (Creswell, 2015). The advantage of this design is its ability to analyze the relationships of a large number of variables and the degree of those relationships within a single study (Gall et al., 2007). For the purpose of this study, the prediction research design was used to determine whether self-efficacy and professional development serve as strong predictors of job satisfaction of pre-kindergarten teachers (Creswell, 2019). Furthermore, the study met the criteria further defined by Creswell (2019) in that the data for the predictor variables would be collected at one point in time, and the criterion variable at a different point in time. The predictor variables for this study were self-efficacy which is defined as an individual's perceptions of what he or she is capable of doing (Bandura, 1977, 1994; Federici & Skaalvik, 2012; Yakin & Erdil, 2012; Yeng & Mao, 2015) and professional development which is defined as structured learning for the purpose of changing teacher practice and improving student achievement (Darling-Hammond et al., 2017). The criterion variable was

job satisfaction which was defined as the pleasurable feeling one gets from one's job when comparing what one expects and what occurs from all aspects of the job (Locke, 1969; Peng & Mao, 2014; Quarstein et al., 1992).

Research Question

The research questions for the study are the following:

RQ1: Is there a significant predictive relationship between the self-efficacy and job satisfaction of Pre-Kindergarten teachers?

RQ2: Is there a significant predictive relationship between professional development and the job satisfaction of Pre-Kindergarten teachers?

Hypothesis

The null hypotheses for this study are:

H_01: There is no significant predictive relationship between the self-efficacy and job satisfaction of Pre-Kindergarten teachers.

H_02: There is not significant predictive relationship between professional development and the job satisfaction of Pre-Kindergarten teachers.

Participants and Setting

Population

This study took place within nine school districts in West Virginia. These districts serve a total of 38,296 students. Percentage of minority, low socioeconomic status, and special education students are included in Table 2 (WVDE, 2020a). As of 2013, an almost nine percent teacher mobility rate has been documented (Sutcher et al., 2016) with a shortage of teachers in pre-kindergarten, especially in the area of special needs, every school year since 2007-2008 (Cross, 2016).

Table 2

District Demographic Information

District	Total Enrollment	% Minority	% Low SES	% Special Education
Berkeley County	19,254	27	42	18
Grant County	1595	3	47	14
Hampshire County	2886	5	48	17
Hardy County	2240	14	49	16
Morgan County	2178	6	48	17
Pocahontas County	955	2	54	16
Preston County	4205	2	45	19
Randolph County	3789	4	49	18
Webster County	1194	2	67	17

The state classifies students within grades pre-kindergarten through five as Early Learning Programs, with pre-kindergarten-kindergarten a subdivision known as Early Learning Readiness. Pre-kindergarten is defined as an educational class for any child who is four years old by July 1 of the year the child is to enroll or any three-year-old child who has met the eligibility requirements for special education services (WVDE, 2020b).

Sample

The participants for this study were selected using convenience sampling, an appropriate method of sampling due to the familiarity of the researcher to the district as well as the researcher's access to local contacts for garnering information (Gall et al., 2007). Participants were restricted to teachers within each district who teach in pre-kindergarten classrooms. The invited participants included all pre-kindergarten teachers within each district, encompassing all factors that represent the districts as a whole. The information was garnered through each district website as well as through contacts with the teacher district's Director of Pre-Kindergarten and

the entities supervising the Head Start collaborative classrooms within these districts and was considered public information. Because this study focused specifically on pre-kindergarten teachers, teaching assistants and supplementary personnel were excluded from the study. The districts have 130 pre-kindergarten classrooms, serving 2,284 students; approximately twenty-five percent of these students receive special education services. These classrooms are situated in 71 locations including elementary, middle, and high schools as well as collaborative daycare settings and Head Start facilities (WVDE, 2020c).

A total of 130 teachers were found to meet the criteria. Contact information was gathered from each district's public website as well as direct phone contact with district level personnel. An email explaining the study, its rational, and procedures for participating was sent to each participant. See Appendix Q for the email letter. A total of 130 surveys were delivered through electronic means, of which 81 were returned. Incomplete surveys were removed with a total sample size of 56 which did not meet the required minimum sample size of 65 for a medium effect size with at statistical power of .80 at the .05 alpha level (Guetterman et al., 2019). Table 3 includes the demographic data of the participants. School demographics were self-reported and included percentage of free and reduced lunch, percentage of minorities in student population, and percentage of special education students. However, questions involving percentage of free and reduced lunch and percentage of minorities in student population were not worded to collect data in the most usable format and were, subsequently removed from the overall data analysis.

Table 3

Frequencies for Participant Demographic Information

	Sex of Teacher	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	3	5.4	5.4	5.4
	Female	53	94.6	94.6	100.0
	Total	56	100.0	100.0	
	Age of Teacher				
Valid	25-35	14	25.0	25.0	25.0
	36-44	20	35.7	35.7	60.7
	45-54	11	19.6	19.6	80.4
	55-64	11	19.6	19.6	100.0
	Total	56	100.0	100.0	
	Race of Teacher				
Valid	White/Caucasian	52	92.9	92.9	92.9
	African American	2	3.6	3.6	96.4
	Asian	1	1.8	1.8	98.2
	Mixed Race	1	1.8	1.8	100.0
	Total	56	100.0	100.0	
	Degree				
Valid	Bachelors Degree	25	44.6	44.6	44.6
	Masters Degree	31	55.4	55.4	100.0
	Total	56	100.0	100.0	
	Experience in PK				
Valid	0-5 Years	22	39.3	39.3	39.3
	6-10 Years	14	25.0	25.0	64.3
	11-15 Years	11	19.6	19.6	83.9
	16-20 Years	2	3.6	3.6	87.5
	21-25 Years	3	5.4	5.4	92.9
	26 years or more	4	7.1	7.1	100.0
	Total	56	100.0	100.0	
	Total Years of Experience				
Valid	0-5 Years	13	23.2	23.2	23.2
	6-10 Years	15	26.8	26.8	50.0
	11-15 Years	14	25.0	25.0	75.0
	16-20 Years	5	8.9	8.9	83.9
	21-25 Years	3	5.4	5.4	89.3
	26 years or more	6	10.7	10.7	100.0
	Total	56	100.0	100.0	

	Number of Students				
Valid	Less than 10	9	16.1	16.1	16.1
	11-20	47	83.9	83.9	100.0
	Total	56	100.0	100.0	
	Teach Special Ed Students				
Valid	Yes	32	57.1	57.1	57.1
	No	24	42.9	42.9	100.0
	Total	56	100.0	100.0	
	Number of Special Ed Students				
Valid	Less than 50%	36	64.3	64.3	64.3
	50-99%	13	23.2	23.2	87.5
	100%	7	12.5	12.5	100.0
	Total	56	100.0	100.0	
	PK Certification				
Valid	Yes	50	89.3	89.3	89.3
	No	6	10.7	10.7	100.0
	Total	56	100.0	100.0	
	Special Ed Certification				
Valid	Yes	29	51.8	51.8	51.8
	No	27	48.2	48.2	100.0
	Total	56	100.0	100.0	
	Type of PK Classroom				
Valid	District PK	39	69.6	69.6	69.6
	Head Start	15	26.8	26.8	96.4
	Daycare Collaborative	2	3.6	3.6	100.0
	Total	56	100.0	100.0	

Instrumentation

Two surveys were used with this study. Both were combined into a survey distributed in June 2021. The first instrument was the Teacher Self-Efficacy Survey (Tschannen-Moran & Woolfolk Hoy, 2000). See Appendix A for permission to use the instrument. The second instrument was the Teacher Job Satisfaction Questionnaire (Lester, 1987). See Appendix B for permission to use the instrument. Data for the variable professional development were gathered through a single question in the post-survey in which participants indicated how many hours of

professional development they have participated in between August 2020 and May 2021. See Appendix S for complete survey.

Teacher Job Satisfaction Questionnaire

The purpose of the Teacher Job Satisfaction Questionnaire (TJSQ) is to measure the job satisfaction of teachers. It was developed by Lester (1982) specifically for use within the educational setting. Based on the theories of Maslow and Herzberg, nine factors associated with job satisfaction were identified, including supervision, colleagues, working conditions, pay, responsibility, work itself, advancement, security, and recognition. See Appendix C for definitions of each of the factors. An initial pool of 120 items was presented to a panel of experts in the field for content validation, with items with less than 80% agreement rewritten or thrown out for a total of 66 items. To avoid response set bias, approximately 50% of questionnaire items were written in a positive form and 50% in a negative form (Lester, 1987). The instrument was then piloted with a sample of participants drawn from New York City, Westchester, Nassau, and Suffolk Counties with two school districts from each selected using a random numbers table. An elementary, junior high school, and high school from each of the school districts was randomly selected, resulting in a sample of 1600 teachers. Of the 631 instruments returned, 620 were usable.

Reliability for the Teacher Job Satisfaction Questionnaire (TJSQ) was determined using an Alpha coefficient for the total and for each of the nine factors or subscales. Internal consistency was determined to be acceptable with scores ranging from .71 to .92, and total item reliability at .93. A split-sample technique was used to cross-validate the data. Factor analysis was performed using an orthogonal varimax solution, reducing the original 16 factors to nine with Eigenvalues equal to or greater than 1.0. Eigenvalues for each subscale were: supervision =

13.106, colleagues = 5.194, working conditions = 4.094, pay = 2.723, responsibility = 2.531, work itself = 2.130, advancement = 1.779, security = 1.567, and recognition = 1.462 (Lester, 1982).

The TJSQ consisted of two parts, the questionnaire and demographic data. Eight items made up the teacher demographic data, including age, sex, marital status, total years of teaching experience, seniority in school district, educational level, tenure, and union affiliation. The TJSQ had items for each of the nine subscales: 14 on supervision, 10 on colleagues, 7 on working conditions, 7 on pay, 8 on responsibility, 9 on work itself, 5 on advancement, 3 on security, and 3 on recognition (Lester, 1982). The questionnaire uses a five-point Likert scale ranging from Strongly Disagree to Strongly Agree. Items written in negative form have their scoring reversed. Therefore, a low score represents low job satisfaction, and a high score represents high job satisfaction.

Teacher Self-Efficacy Survey

The purpose of the Teacher Self-Efficacy Survey (TSES) is to measure the self-efficacy of teachers. It was developed by two researchers and eight graduate students in a seminar class at The Ohio State University. Based on a scale of self-efficacy created by Bandura as well as self-generated items, a total of 100 items were initially created. Using a nomination, discussion, and revision approach, the items were decreased to 52, 23 of which came from Bandura's scale and 19 from the group-generated list. Initially titled the *Ohio State teacher efficacy scale* (Tschannen-Moran & Hoy, 2001), the survey was used in three studies. In the first study, the items were reduced from 52 to 32, and the second study saw it further reduced to 18 items with three subscales. In the third study, 18 additional questions were added and tested. The resulting instrument was created in both a long form (24 items) and a short form (12 items) and tested for

reliability and validity.

Using principal-axis factoring with varimax rotation (Tschannen-Moran & Hoy, 2001), four initial factors with eigenvalues greater than one emerged, and three factors were extracted using a scree test: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement. Eight items from each factor (subscale) with the highest loadings were selected to create the final 24-item long form and four items from each factor to create the final 12-item short form. Reliabilities for each subscale ranged from 0.87 to 0.91, and intercorrelations ranged from 0.58 to 0.70. Subscale means ranged from 6.71 to 7.27. Additional factor analysis was conducted on both the long and short forms for use with preservice and in-service teachers with the recommendation emerging that only the total score for efficacy be used for preservice teachers. Construct validity was assessed using other measures of efficacy, and the TSES was found to be reliable and valid.

The instrument uses a nine-point Likert scale ranging from None at All to A Great Deal with anchors at 1—Nothing at All, 3—Very Little, 5—Some Degree, 7—Quite a Bit, and 9—A Great Deal. The combined possible score on the short form version of the instrument range from 12 to 108. A score of 12 is the lowest possible score indicating low self-efficacy, and a score of 108 is the highest possible score indicating high self-efficacy.

Professional Development

Participants were asked to report the total number of hours of professional development contained in their official employment record from August 2020 to May 2021. Professional development was defined as those professional development activities provided directly or indirectly by the supervising agency of the Pre-Kindergarten teacher. The supervising agency could be the school district, Head Start, the daycare provider, or a combination thereof.

The instruments were combined into a single survey and administered electronically through Survey Monkey. The researcher entered the results into an Excel spreadsheet and analyzed using the SPSS for Microsoft software program. It was estimated the survey would take 30 minutes to complete.

Procedures

Approval was sought from the university Institutional Review Board to conduct this study. See Appendix D IRB Approval to conduct this survey. A database of pre-kindergarten teachers who supervise classrooms within each district was gathered from the district level supervisor of Pre-Kindergarten in each district and the supervisors of the entities covering Head Start classrooms within these districts. See Appendices E-O for permission to conduct research in each of the 11 West Virginia Pre-K entities. Emails for each participant were gathered from district public websites. Only teachers meeting this criterion were invited to attend. Each participant teacher was sent an email letter on April 12, 2021, explaining the study, notifying them of district approval, and providing informed consent. See Appendix P for Informed Consent and Appendix Q for participant invitation. The initial survey invitation was sent via email on May 18, 2021, and it included another copy of the informed consent as well as a link to the survey, which was available through Survey Monkey for two weeks, providing enough time for the highest likelihood of responses (Zheng, n.d.) and second attempt contacts. See Appendix R for the initial survey invitation. Upon receiving the email, the participants could click on the Survey Monkey link. The link took the participants to Survey Monkey where the survey appeared. Clicking on the survey link was construed as agreeing to participate in the study. See Appendix S for the survey. Participants were emailed a second time nine days after the initial email requesting their participation. See Appendix T for second attempt letter. Participants were

emailed a total of seven attempts to garner sufficient responses through August 23, 2021. After considering the elapsed time between the first and final attempts, the researcher decided to end the data collection and move forward with those responses already collected.

Survey responses were compiled in Survey Monkey and transferred to an Excel spreadsheet. Participant responses were anonymous. Data were analyzed through the SPSS for Windows statistical program. The survey responses and data analysis will be stored on a secure laptop that is password protected within the researcher's home for a minimum of three years before being destroyed.

Data Analysis

Data analysis utilized a linear regression for each hypothesis. Bivariate or linear regression is considered the simplest of regression analyses and is useful in determining if a significant predictive relationship exists between one or more variables (Guetterman et al., 2019). Additionally, a linear regression assumes the relationship between the criterion and each predictor variable is linear and also assumes each variable is normally distributed (Gall et al., 2007). For the purpose of this study, the criterion variable was job satisfaction, and the predictor variable was self-efficacy. A second analysis was conducted between job satisfaction and the predictor variable of professional development. For the purpose of this study, the null was tested at the 95% confidence level, and the effect size will be determined by eta squared (Warner, 2013).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to see if self-efficacy could predict the job satisfaction of Pre-Kindergarten teachers and if professional development could predict the job satisfaction of the same Pre-Kindergarten teachers. The criterion variable was job satisfaction, and the predictor variables were self-efficacy and professional development. The Findings section includes the research question, null hypotheses, data screening, descriptive statistics, assumption testing, and results.

Research Questions

The research questions for the study are the following:

RQ1: Is there a significant predictive relationship between the self-efficacy and job satisfaction of Pre-Kindergarten teachers?

RQ2: Is there a significant predictive relationship between professional development and the job satisfaction of Pre-Kindergarten teachers?

Null Hypotheses

The null hypotheses for the study are the following:

$H_0 1$: There is no significant predictive relationship between the self-efficacy and job satisfaction of Pre-Kindergarten teachers.

$H_0 2$: There is not significant predictive relationship between professional development and the job satisfaction of Pre-Kindergarten teachers.

Data Screening

The researcher sorted the data and scanned for inconsistencies on each variable. Any open-ended survey questions were removed from the data due to not providing quantitative

measures. A scatter plot was used to detect bivariate outliers between the criterion variable job satisfaction and the predictor variable self-efficacy. While some outliers were identified, none were considered extreme. See Figure 2 for the scatter plot. A second scatter plot was used to detect bivariate outliers between the criterion variable job satisfaction and the predictor variable professional development. No extreme bivariate outliers were identified. See Figure 3 for the scatter plot.

Figure 2

*Scatter Plot between Job Satisfaction and Self-Efficacy*
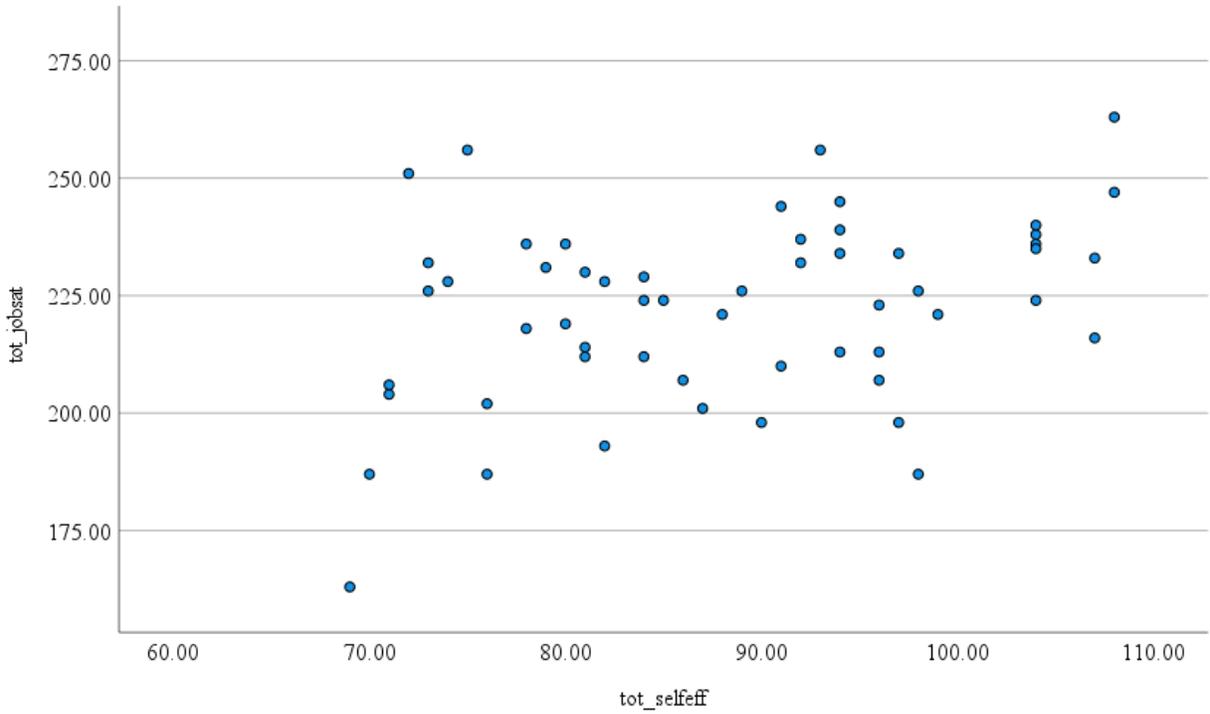
Figure 3

Scatter Plot between Job Satisfaction and Professional Development
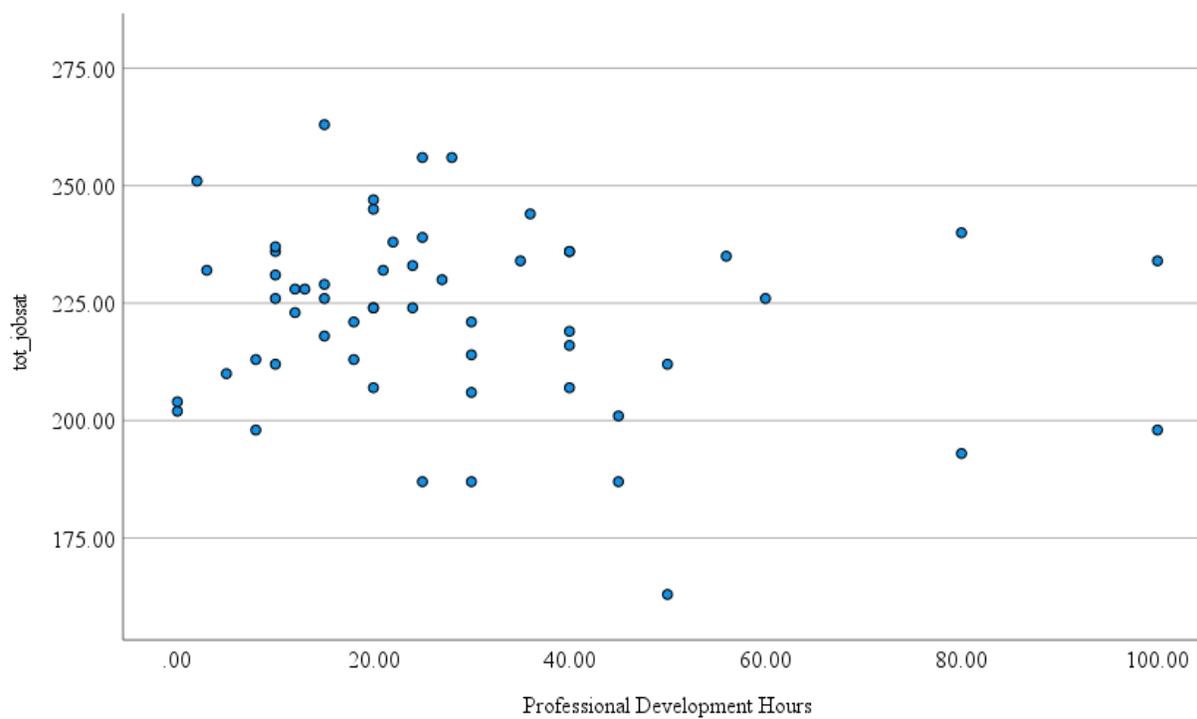
Descriptive Statistics

This study examined the predictive relationship between self-efficacy and the job satisfaction of Pre-Kindergarten teachers. The criterion variable for this study was job satisfaction, and the predictor variable was self-efficacy. A second analysis was conducted between job satisfaction and the predictor variable of professional development hours. One hundred thirty participants were invited to participate in the study, with data collected from 81 participants. However, several surveys were returned incomplete. Surveys were considered incomplete if one or more questions were left unanswered. Surveys with unanswered questions were removed, and only data from complete surveys (*N*=56) were included in this study. The number of participants did not meet the minimum sample size of 65 needed for a medium effect

size (Guetterman et al., 2019). However, due to the length of time spent receiving the current

scores as well as the proximity to the new school year, the researcher moved forward with the

data analysis. Proceeding without meeting the minimum sample size did put the study at risk of

not obtaining enough power to achieve a significant result (Warner, 2013). Job satisfaction

scores, as measured by the TJSQ, can range from 66 to 330 with an average of 198. A high score

of 330 means the teacher has a high level of job satisfaction, whereas a low score of 66 means

the teacher has a low level of job satisfaction. Self-efficacy scores, as measured by the TSES,

can range from 12 to 108 with an average of 60. A high score of 108 means the teacher has a

high level of self-efficacy, whereas a score of 12 means the teacher has a low level of self-

efficacy. Professional development scores were self-reported by the participants. Descriptive

statistics can be found in Table 4.

Table 4

Descriptive Statistics for Criterion Variable and Predictor Variables

	N	Minimum	Maximum	Mean	Median	Std. Deviation
TJSQ	56	163.00	263.00	222.36	225.00	19.50
TSES	56	69.00	108.00	88.23	88.50	11.29
Professional Development Hours	56	.00	100.00	28.34	23.00	22.51

Assumption Testing

Assumption of Linearity

The bivariate regression requires that the assumption of linearity be met. Linearity

between job satisfaction and self-efficacy was examined using a scatter plot. The assumption of

linearity was met for these two variables. See Figure 2 for the bivariate scatterplot. Linearity

between job satisfaction and professional development was also examined using a scatter plot.

The assumption of linearity was met for these two variables. See Figure 3 for the bivariate scatterplot.

Assumption of Bivariate Normal Distribution

The bivariate regression requires the assumption of bivariate normal distribution be met. The assumption of bivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution between job satisfaction and self-efficacy was met. See Figure 2 for scatterplot. The assumption of bivariate normal distribution between job satisfaction and professional development was met. See Figure 3 for scatterplot.

<div align="center">

Results

</div>

Hypothesis One

A bivariate regression was conducted to see if there was a predictive relationship between job satisfaction scores and self-efficacy scores for Pre-Kindergarten teachers. The criterion variable was job satisfaction. The predictive variable was self-efficacy. The researcher rejected the null hypothesis at the 95% confidence level where $F(1,54) = 6.98$, $p = .01$. There was a statistical predictive relationship between the criterion variable (job satisfaction) and the predictive variable (self-efficacy). See Table 5 for regression model results.

Table 5

One-Way Analysis of Variance in Job Satisfaction and Self-Efficacy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2393.750	1	2393.750	6.983	.011[b]
	Residual	18511.108	54	342.798		
	Total	20904.857	55			

a. Dependent Variable: tot_jobsat
b. Predictors: (Constant), tot_selfeff

The model's effect size was large where $R = .338$. Furthermore, $R^2 = .115$ indicating that approximately 11.5% of the variance of the self-efficacy scores can be explained by its linear relationship with job satisfaction scores. See Table 6 for the model summary.

Table 6

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.338[a]	.115	.098	18.51481

b. Predictors: (Constant), tot_selfeff

Hypothesis Two

A bivariate regression was conducted to see if there was a predictive relationship between job satisfaction scores and professional development hours for Pre-Kindergarten teachers. The criterion variable was job satisfaction. The predictive variable was professional development. The researcher failed to reject the null hypothesis at the 95% confidence level where $F(1,54) = 1.61$, $p = .21$. There was not a statistical predictive relationship between the criterion variable (job satisfaction) and the predictive variable (professional development). See Table 7 for regression model results.

Table 7

One-Way Analysis of Variance in Job Satisfaction and Professional Development Hours

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	605.777	1	605.777	1.611	.210[b]
	Residual	20299.080	54	375.909		
	Total	20904.857	55			

a. Dependent Variable: tot_jobsat
b. Predictors: (Constant), Professional Development Hours

CHAPTER FIVE: CONCLUSIONS

Overview

This study examined the predictive relationship between the job satisfaction and self-efficacy of Pre-Kindergarten teachers. Additionally, it examined the predictive relationship between job satisfaction and professional development hours of the same Pre-Kindergarten teachers. The study utilized two instruments to measure the perceived teacher self-efficacy and job satisfaction along with self-reported number of professional development hours. In this chapter, the results for each null hypothesis are discussed within the context of the literature and theoretical framework. It also includes the implications and limitations of the study and suggestions for future research.

Discussion

The purpose of this study was to utilize a quantitative correlational design to determine if the job satisfaction of Pre-Kindergarten teachers in West Virginia could be predicted by their self-efficacy. The study also examined if job satisfaction could be predicted by the number of professional development hours the same teachers attended during a single school year. Both self-efficacy and professional development are grounded in social cognitive theory as described by Albert Bandura. Job satisfaction is founded on Edwin Locke's range of affect theory and Frederick Herzberg's motivation-hygiene theory. Research connecting these concepts abounds across many professions, including education. This study aimed to contribute to the research by focusing on the specific population of Pre-Kindergarten teachers in West Virginia.

Teachers are the primary purveyors of cognitive development within the academic setting, and their own beliefs in what they can accomplish directly affects the self-efficacy of themselves and the students they teach. Carney et al. (2016) found that more efficacious teachers

tend to have students who are more successful, and Yoo (2016) found less efficacious teachers tend to have higher stress levels which affect job satisfaction and burnout. Teachers with a high sense of self-efficacy are more likely to try new concepts and are more likely to see change as part of their development process (Guskey, 1988).

Hypothesis 1

This study sought to determine if the job satisfaction of Pre-Kindergarten teachers could be predicted by their self-efficacy. Self-efficacy is defined as the personal beliefs one has about his ability to perform at the desired levels necessary to influence other aspects of one's life (Bandura, 1994) and is influenced by four major sources, including mastery experience, physiological responses, vicarious experience, and verbal persuasion (Tschannen-Moran & Gareis, 2004). In the current study, self-efficacy was determined using the Teacher Self-Efficacy Scale (TSES) created by Tschannen-Moran and Hoy (2001). This instrument looked at three subscales: efficacy of student engagement, efficacy of instructional strategies, and efficacy of classroom management. The education field has been widely used to research self-efficacy, including student efficacy (Bandura, 1993), teacher efficacy (as cited in Carney et al., 2016), principal efficacy (Federici & Skaalvik, 2012; Tschannen-Moran & Gareis, 2004), and collective efficacy (Bandura, 1993).

Job satisfaction is defined as the result of how well an employee's job provides what he feels is important while performing said job (Kumar & Singh, 2011) and encompasses all components of the job, such as pay, work environment, coworkers, promotions, and so forth (Rice, Gentile, et al., 1991). In the current study, job satisfaction was determined using the Teacher Job Satisfaction Questionnaire (TJSQ) created by Paula Lester (1987). This instrument broke the concept of job satisfaction into nine factors: supervision, colleagues, working

conditions, pay, responsibility, work itself, advancement, security, and recognition. To determine job satisfaction or dissatisfaction, one must make a value judgement between what one wants and gets from a job facet along with how important that facet is to an individual (Mobley & Locke, 1970). Job satisfaction has been studied extensively across a variety of professions, including education. Studies focusing specifically on Pre-Kindergarten teachers found teachers who perceived higher levels of influence and collegiality had higher job satisfaction (Hur et al., 2016). Lee and Quek (2018) found high-quality environments involved strong collegial relationships, a professional learning culture and strong student support from administrators.

In the current study, there was evidence of a relationship between job satisfaction and self-efficacy, allowing the researcher to reject the null hypothesis. The results corroborated previous studies connecting self-efficacy and job satisfaction. The job satisfaction of Pre-Kindergarten teachers could be attributed by the 11.5% variance in self-efficacy. Teachers in Turkey were found to have a significant relationship between self-efficacy and job satisfaction (Karabiyik & Korumaz, 2014), and Troesch and Bauer (2017) found a higher self-efficacy contributed to higher job satisfaction of second career teachers. The study also aligned with the literature review conducted by Zee and Koomen (2016) of studies relating teacher self-efficacy and job satisfaction.

Hypothesis 2

This study sought to determine if the job satisfaction of Pre-Kindergarten teachers would be predicted by the number of professional development hours these teachers participated in during the school year. Guskey (1986) defined staff development as a systemic approach to bring about change in teacher practices, beliefs, and attitudes and change in student learning outcomes. For the purpose of the current study, professional development hours were self-reported by the

participants and included those professional development activities provided directly or indirectly by the supervising agency of the Pre-Kindergarten teacher. Linking professional development to the job satisfaction of educators has focused extensively on the university level (Hoekstra, 2014; Morris & Laipple, 2015; Pedersen, 2017).

In the current study, there was evidence of a relationship between job satisfaction and professional development. However, the researcher was not able to reject the null due to not reaching the necessary level of statistical significance. The small sample size was considered the most likely reason for not being able to meet this requirement. In the current study, approximately 29% of the variance of the professional development hours could be explained by its linear relationship with job satisfaction. However, a visual examination of the scatterplot comparing job satisfaction and professional development showed the more hours of professional development reported, the lower the job satisfaction. While the study had a small sample size, this information appeared to be at odds with multiple studies in which professional development had positive effect on job satisfaction (Hall, 2007; Helms-Lorenz et al., 2018; Song et al., 2018; Song & Mustafa, 2015; Whitehead, 2006).

Implications

In a report conducted by the Economic Policy Institute (2019), the authors noted the magnitude of the teacher shortage has become worse, citing working conditions, lack of participation in teacher preparation programs, and the inability to find qualified teachers as some of the causes for the shortage. More recent studies have shown the current pandemic has increased the pressure on teachers to meet the social emotional needs of their students while maintaining their own mental well-being (Darling-Hammond & Hyler, 2020). The effects of a high-quality Pre-Kindergarten learning experience on a child's future academic success and

subsequent success in life is well documented, and the effects on children from low socioeconomic communities is even greater (Barker et al., 2021).

Teacher resiliency is the ability to adapt positively to adverse events within the job setting (Gibbs & Miller, 2014). One dimension of job satisfaction is an emotional response to a situation (Kumar & Singh, 2011). Workers with a higher self-efficacy are less likely to resign, work harder, are more persistent, and are more confident when dealing with challenges (Peng & Mao, 2014). Highly efficacious teachers are more likely to pursue more strenuous tasks, exhibit greater perseverance when faced with disappointment, and are more confident in their ability to take on and accomplish tasks of greater risk (Bandura, 1994). Findings of the current study corroborate the role of self-efficacy of Pre-Kindergarten teachers in determining their job satisfaction. Teachers who are intrinsically motivated are less likely to leave the profession when compared to more emotionally exhausted teachers (Grant et al., 2019).

Professional development has been the main method of bringing about change in teacher beliefs, practices, and attitudes since the early 19th century (Guskey, 1986; Richey, 1957). Teachers who are more efficacious were more likely to be engaged in their learning, and when professional development opportunities included working with colleagues, teacher resiliency increased (Durksen et al., 2017). Additionally, early career teachers were more likely to stay in the profession when provided with research-based, continuing professional development (Ovenden-Hope et al., 2018). Understanding the efficacy needs of teachers allows district level administrators to put measures in place for appropriate professional development.

Novice teachers who started their careers in professional development schools were more highly satisfied than those who did not, highlighting the importance of aligning teacher pre-service programs with real-world experiences (Helms-Lorenz et al., 2018). Understanding the

reality of the classroom and the expectations of the job become essential in maintaining teachers. The lack of support through professional development opportunities is one of the factors making teaching less attractive, and with the current teacher shortage, the chances of schools being staffed by unqualified teachers is highly likely (Garcia & Weiss, 2019). Teacher attrition, defined as teachers leaving the profession, has been attributed to accountability pressure, lack of administrative support, dissatisfaction with their career, lack of advancement, and working conditions (Carver-Thomas & Darling-Hammond, 2017). All of these factors fall within the concept of job satisfaction. While the current study appeared to show professional development as having a negative effect on job satisfaction especially as the number of professional development hours increased, it provides the opportunity for district-level administrators to examine the type and amount of professional development provided and determine if it meets the needs of the current work force.

Limitations

Multiple limitations in this study revolve around sampling, both in method and size. Convenience sampling was chosen due to this researcher's familiarity with the districts within the state as well as the researcher's access to local contacts for garnering information. Gall et al. (2007) extended caution when considering the results of one study in generalizing and applying the results to the population as a whole. The participants in this study were all drawn from classrooms across West Virginia and shared similar curricular and policy standards. Thirty-nine participants taught in classrooms supervised by school districts, 12 participants taught in classrooms supervised by Head Start, and two participants taught in classrooms supervised by daycare collaboratives. This study did not take into consideration this factor when analyzing the data.

For the purpose of this study, a minimum of 66 participants was needed to meet the 95% confidence level at a medium effect size. The larger the sample size, the smaller effect size needed to reject the null (Gall et al., 2007). The sample size for this study was 56. While the data analysis for each set of variables indicated a relationship, the smaller sample size affected the ability of the researcher to reject both null hypotheses.

An additional limitation involved the predictive variable professional development. For the purpose of this study, professional development was defined as those activities sponsored either directly or indirectly by your supervising agency and documented as part of your official record, and participants were asked to self-report the number of hours of professional development they participated in during the 2020-2021 school year. The average hours indicated by those participants who were supervised by school districts was 32.56 hours, 17.40 hours for those supervised by Head Start, and 27.50 hours for those supervised by daycare collaboratives. This factor should have been considered in the analysis as there is a significant range in the number of professional development hours provided between the three supervising entities.

Recommendations for Future Research

After reviewing the findings of this study which examined the predictive relationship between job satisfaction and self-efficacy and between job satisfaction and professional development hours of Pre-Kindergarten teachers, the following recommendations can be made for future research:

1. Additional research is needed on the same topic with a larger sample size. The current study shows relationships between each of the predictor variables and the criterion variable; however, a larger sample size would provide more data within a state that is not widely studied in educational research.

2. Additional research should explore the types and amount of professional development across the three types of Pre-Kindergarten classrooms explored in the current study. The type of professional development provided to teachers is important in its effectiveness (Darling-Hammond et al., 2017), and given the use of professional development to build self-efficacy and teacher resilience (Durksen et al., 2017), examining the type of professional development presented may provide insight into what is needed to grow and retain this particular population of teachers.

3. Additional research in self-efficacy and job satisfaction should control for demographic factors, such as the racial diversity and socioeconomic status of the classrooms studied, the presence of students with special needs within the classroom, and the certification status of the teacher of record. The current study did not control for any demographic factors.

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Appendix A: Permission to Use Teacher Self-Efficacy Survey

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN,
PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

April 22,

2019

Amanda,

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.

All the best,

Megan Tschannen-Moran
William & Mary School of Education

P.O. Box 8795 • Williamsburg, VA 23187-8795 • (xxx) xxx-xxxx • xxxxxxx@wm.edu

Appendix B: Permission to Use Teacher Job Satisfaction Questionnaire

<div align="right">

Dr. Paula E. Lester, Ph.D.
Interdisciplinary Educational Studies Doctoral Program
Long Island University/C. W. Post Campus
College of Education, Information and Technology
720 Northern Boulevard
Brookville, NY 11548

</div>

May 8, 2019

Amanda Stevens
xxx xxxxxx xxxx
xxxxxxx, xx xxxxx

Dear Amanda,

Thank you very much for your interest in the Teacher Job Satisfaction Questionnaire that I developed and validated.

You have my written permission to utilize the TJSQ in your study and to put the questions from the survey into an electronic format for ease of distribution and scoring. If possible, please make sure that participants need a password to log into the survey. I try to keep the survey protected. When you complete your research, please send me a copy of your research.

If I may be of any assistance to you, please feel free to contact me.

Sincerely,

Paula E. Lester

Paula E. Lester, Ph.D.
Senior Professor

Appendix C: Definitions of Nine Factors of Teacher Job Satisfaction Questionnaire

Definition of Nine Final Factors of Teacher Job Satisfaction Questionnaire

Factor	Definition
Supervision	The task-oriented behavior and person-oriented behavior of the immediate supervisor.
Colleagues	The work group and social interaction among fellow teachers.
Working Conditions	The working environment and aspects of the physical environment.
Pay	Annual income.
Responsibility	The opportunity to be accountable for one's own work and the opportunity to take part in policy or decision-making activities.
Work Itself	The job of teaching or the tasks related to the job. =The freedom to institute innovative materials and to utilize one's skills and abilities in designing one's work. The freedom to experiment and to influence or control what goes on in the job.
Advancement	The opportunity for promotion.
Security	The school's policies regarding tenure, seniority, layoffs, pension, retirement, and dismissal.
Recognition	Some act of notice, blame, praise, or criticism.

Note. Reprinted with permission from Lester, P. E. (1982).

Appendix D: IRB Approval

IRB #: IRB-FY19-20-441
Title: The Relationship of Self-Efficacy and Professional Development on the Job Satisfaction of Pre-Kindergarten Teachers
Creation Date: 6-7-2020
End Date:
Status: Approved
Principal Investigator: Amanda Stevens
Review Board: Research Ethics Office
Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt

Key Study Contacts

Member	Wesley Scott	Role	Co-Principal Investigator	Contact	wlscott@liberty.edu
Member	Amanda Stevens	Role	Principal Investigator	Contact	astevens11@liberty.edu
Member	Amanda Stevens	Role	Primary Contact	Contact	astevens11@liberty.edu

Appendix E: Berkeley County Schools Permission to Conduct Research

RESPONSE TO CONDUCT RESEARCH APPLICATION

BERKELEY COUNTY SCHOOLS

I have reviewed _____ Amanda Stevens _____'s (Name)

research protocol, including any letters of consent or assent, titled

" The Effect of Professional Development and Self-efficacy on the Job Satisfaction of Pre-Kindergarten Teachers. _____."

I understand what h/she is asking of the individuals and have the authority to grant him/her permission to conduct the study within Berkeley County Schools.

I hereby:

_____ Grant permission to conduct research as presented within Berkeley County Schools.

___X____ Grant permission to conduct research as presented within Berkeley County Schools; however, I have noted the following areas of concern: Email to Potential Participants must include the following, "This research project is neither sponsored nor endorsed by the Berkeley County Board of Education, its agents or employees. The views and information contained in these materials reflect neither the approval nor the disapproval of this Board or the school administration." Additionally please note, the researcher is responsible for survey distribution, not BCS.

_____ Deny permission to conduct research within Berkeley County Schools.
Concerns/Reasons: _____
_____
_____
_____

If you have any further questions about the approval/denial of the research study I can be research at

Justin L. Schooley, Ed.D.
Assistant Superintendent of Human Resources
Berkeley County Schools

Signature

December 27, 2019

Date

Appendix F: EACHS Head Start Permission to Conduct Research

I was told by my Executive Director to tell you that we will do what we can to help you but there will be no onsite visits.

Appendix G: EPIC Head Start Permission to Conduct Research
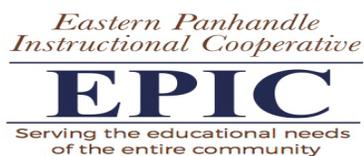
12/13/2019

Amanda M. Stevens
EdD Candidate
Liberty University

Dear Amanda M. Stevens:

After careful review of your research proposal entitled *The Effect of Professional Development on the Self-efficacy and Job Satisfaction of Pre-Kindergarten Teachers.* I have decided to grant you permission to conduct your study in Berkeley, Jefferson and Morgan Counties with the EPIC Head Start/Pre-K teachers.

Check the following boxes, as applicable:

☐ The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

X The requested data WILL NOT BE STRIPPED of identifying information before it is provided to the researcher.

X I/We are requesting a copy of the results upon study completion and/or publication.

Sincerely,

Heidi Bach-Arvin
Director
EPIC Early Head Start/Head Start/Pre-K

Appendix H: Grant County Schools Permission to Conduct Research

Grant County

Doug Lambert
11/18/2020 12:19 PM

To: Amanda Stevens Cc: Vanessa Harlow

Hi Ms. Stevens - After speaking with our Director of Elementary Education, Vanessa Harlow, we will help. Contact Mrs. Harlow regarding the project and things that need to be accomplished.

Doug

Her email is..

DOUG LAMBERT
SUPERINTENDENT
GRANT COUNTY SCHOOLS

Appendix I: Hampshire County Schools Permission to Conduct Research

From: Patty Lipps
Sent: Monday, April 6, 2020 7:47 AM
To: Amanda Stevens
Cc: Jeff Pancione
Subject: Re: Graduate Work

Amanda,

Good morning. Mr. Pancione and I discussed this weeks ago and felt it was fine for you to attempt to survey our pre-k teachers. When I looked at the survey, I thought it was pretty long and cumbersome, but since the pandemic has hit us, our pre-k teachers would have more time to complete it at their leisure at home. I'm not sure what needs to happen from our end at this point.

Have a great day. Patty

Patty Lipps
Director of Elementary and Middle Curriculum & Federal Programs
Hampshire County Schools

Appendix J: Hardy County Schools Permission to Conduct Research

SHEENA VAN METER, Superintendent
JENNIFER STRAWDERMAN,
Assistant Superintendent

County Board of Education Members
NANCY V. HAHN, President
DOUGLAS C. HINES, Vice President
DIXON T. BEAN
MELVIN SHOOK JR.
JERRY YATES

May 11, 2020

Amanda M. Stevens
EdD Candidate
Liberty University

Dear Amanda M. Stevens:

After careful review of your research proposal entitled *The Effect of Professional Development and Self-Efficacy on the Job Satisfaction of Pre-Kindergarten Teachers*, I have decided to grant you permission to conduct your study within Monongalia County Schools.

Check the following boxes, as applicable:

☒ [The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.]

☐ [The requested data WILL NOT BE STRIPPED of identifying information before it is provided to the researcher.]

☐ [I/We are requesting a copy of the results upon study completion and/or publication.]

Sincerely,

Sheena Van Meter
Superintendent
Hardy County Schools

Helping Students Succeed: Every One, Every Time

Appendix K: Morgan County Schools Permission to Conduct Research

Morgan County Schools
Kristen Tuttle, Superintendent

www.morganschools.net

Board of Education
Aaron Close, President
Pete Gordon, Vice President
Eric Lyda
John Rowland
Laura Smith

EVERY CHILD EVERY DAY

December 16, 2019

Amanda M. Stevens
EdD Candidate
Liberty University

Dear Amanda M. Stevens:

After careful review of your research proposal entitled *The Effect of Professional Development on the Self-efficacy and Job Satisfaction of Pre-Kindergarten Teachers.* I have decided to grant you permission to conduct your study in Morgan County Schools.

Check the following boxes, as applicable:

☐ The requested data WILL BE STRIPPED of all identifying information before it is provided to the researcher.

☐ The requested data WILL NOT BE STRIPPED of identifying information before it is provided to the researcher.

☒ I/We are requesting a copy of the results upon study completion and/or publication.

Sincerely,

Kandy Pentoney
Director of Pre-K-5 Curriculum and Instruction
Morgan County Schools

Appendix L: Pocahontas County Schools Permission to Conduct Research

Re: Research Request

Terrence Beam
11/15/2020 8:20 PM

To: Amanda Stevens

I will approve your request.

Appendix M: Preston County Schools Permission to Conduct Research

Re: Research Request

Stephen Wotring <​ ​>
11/16/2020 10:17 AM

To: Amanda Stevens

You have permission to conduct the surveys for your doctoral program.

Stephen L. Wotring
Superintendent
Preston County Schools
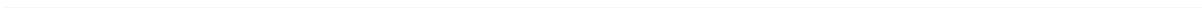
Appendix N: Randolph County Schools Permission to Conduct Research

From: LaDonna F
Sent: Thursday,
To: Amanda Stev
Cc: Gene Purkey
Subject: RE: Research Request

Good Morning Amanda,

Mrs. Schmidlen forwarded your email to me. I have met with the Pre-K Collaborative Team and we agree to participate in your research project in Pre-Kindergarten classrooms in Randolph County. Please let me know what Randolph County will need to do next.

I look forward to talking to you,

LaDonna Rosencrance
Randolph County BOE
Director of Child Nutriton and Pre-K

Appendix O: Webster County Schools Permission to Conduct Research

Re: Research Request

Scott Cochran <​_____​>
11/16/2020 3:24 PM

To: Amanda Stevens

Amanda,

This should be fine to proceed with.

Good Luck in your future endeavors,

Scott Cochran
Superintendent
Webster County Schools

Appendix P: Informed Consent

CONSENT FORM
The Relationship of Self-Efficacy and Professional Development on the Job Satisfaction of Pre-
Kindergarten Teachers
Amanda M. Stevens
Liberty University
School of Education

You are invited to be in a research study examining the effect of professional development and self-efficacy on the job satisfaction of pre-kindergarten teachers. You were selected as a possible participant because you are 18 years of age or older and employed as a Pre-Kindergarten teacher. Please read this form and ask any questions you may have before agreeing to be in the study.

Amanda M. Stevens, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to examine the effect of professional development and self-efficacy on the job satisfaction of pre-kindergarten teachers. One's feelings of self-efficacy can determine how one handles the pressures of a job, providing motivation to continue or possibly leave the position. Professional development has the potential to raise one's self-efficacy and the achievement of your students. This study will examine the current attitudes of pre-kindergarten teachers and determine if there is an effect on job satisfaction.

Procedures: If you agree to be in this study, I would ask you to do the following things using the online survey resource Survey Monkey:
1. Keep a record of the number of hours of any professional development you attend during the school year. This professional development may be informal or formal, on your own or required by your employer, or provided by the county/state or provided by outside sources. It is estimated that it will take you approximately 15 minutes to record the number of hours attended throughout the school year.
2. Complete a survey at the end of the academic year. It will take approximately 30 minutes to complete the survey. The survey will contain a question where you will record the number of hours of professional development you attended throughout the academic year.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include a possible increase in the understanding of pre-kindergarten teachers' efficacy and job satisfaction and the effects of professional development that has been conducted.

Compensation: Participants will not be compensated for participating in this study.

Liberty University
IRB-FY19-20-441
Approved on 2-2-2021

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect about you, I will remove any information that could identify you, if applicable, before I share the data. Data will be stored on a password locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Amanda M. Stevens. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ███████████████. You may also contact the researcher's faculty chair, Dr. Wesley Scott, at ██████████.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Appendix Q: Participant Invitation Email

April 12, 2021

Dear Colleague:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to determine if professional development effects the self-efficacy and job satisfaction of pre-kindergarten teachers, and I am writing to invite you to participate in my study.

To participate in this survey, one must be a pre-kindergarten teacher in your school district. If you are 18 years of age or older and are willing to participate, you will be asked to complete an online survey at the end of May 2021. It should take approximately 20 minutes to thoughtfully answer questions pertaining to: demographic information, self-efficacy beliefs, and job satisfaction beliefs. You will also be asked about the amount of professional development you participated in this school year. Your participation will be completely anonymous, and no personal, identifying information will be collected.
For the purpose of this study, professional development is described as those activities sponsored either directly or indirectly by your supervising agency and documented as part of your official record. Supervising agency could be Head Start, district, daycare, etc. A follow up email will be sent to you in mid-May with the link to the survey.

A cover letter explaining consent is attached, but you do not need to sign and return it. Participation in the survey in May will signify consent. If you have any questions about the study and your role, please contact me at either email below.

Sincerely,

Amanda M. Stevens
xxxxxxxxx@liberty.edu
xxxxxxxxxx@xxxxxxxx

Appendix R: Initial Survey Email

May 18, 2021

Dear Colleague:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to determine if professional development effects the self-efficacy and job satisfaction of pre-kindergarten teachers, and I am writing to invite you to participate in my study.

To participate in this survey, one must be a pre-kindergarten teacher in your district. If you are 18 years of age or older and are willing to participate, you will be asked to complete an online survey. It should take approximately 30 minutes to thoughtfully answer questions pertaining to: demographic information, self-efficacy beliefs, and job satisfaction beliefs. You will also be asked to include the amount of professional development you participated in this school year. Your participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, click on the provided survey link within this email. A copy of the cover letter that was sent earlier this semester explaining consent is also attached. The consent document contains additional information about my research, but you do not need to sign and return it.

https://www.surveymonkey.com/r/WVPKTeachers

Sincerely,

Amanda M. Stevens
xxxxxxxxxx@xxxxxxxxx
xxxxxxxxxxx@xxxxxxxx

Appendix S: Survey

Note. Remove to comply with copyright. Lester, P. E. (1982). *Teacher job satisfaction questionnaire manual.* Unpublished manuscript. Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

Appendix T: Follow Up Survey Email

May 27, 2021

Dear Colleague:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. Last week an email was sent to you inviting you to participate in a research study. This follow-up email is being sent to remind you to complete the survey if you would like to participate and have not already done so. The deadline for participation is June 4, 2021.

To participate in this survey, one must be a pre-kindergarten teacher in your district. If you are 18 years of age or older and are willing to participate, you will be asked to complete an online survey. It should take approximately 30 minutes to thoughtfully answer questions pertaining to: demographic information, self-efficacy beliefs, and job satisfaction beliefs. You will also be asked to include the amount of professional development you participated in this school year. Your participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, click on the provided survey link within this email.

https://www.surveymonkey.com/r/WVPKTeachers

Sincerely,

Amanda M. Stevens
xxxxxxxxx@xxxxxxxxxx
xxxxxxxxx@xxxxxxxxxx