11-17-2017

# Improving induction of new preschool to 12th grade teachers through differentiated induction activities tailored to individual teachers' needs

Timothy Teehan
*Rowan University*

# IMPROVING INDUCTION OF NEW PRESCHOOL TO 12TH GRADE TEACHERS THROUGH DIFFERENTIATED INDUCTION ACTIVITIES TAILORED TO INDIVIDUAL TEACHER'S NEEDS

by

Timothy M. Teehan

A Dissertation

Submitted to the
Department of Educational Services and Leadership
College of Education
In partial fulfillment of the requirement
For the degree of
Doctor of Education
at
Rowan University
October 10, 2017

Dissertation Chair: JoAnn B. Manning, Ed.D.

**Dedications**

I would like to dedicate this manuscript to my wife, Lisa Teehan, for her tremendous support throughout the coursework, research, and writing. For their never-ending encouragement, I extend my sincere gratitude to my six children: Alyssa, Kara, Keriann, Trevor, Shannon, and Thomas.

**Acknowledgements**

I want to express my sincere appreciation to Dr. JoAnn Manning, Dr. Carol Thompson, and Dr. Timothy Purnell who as a team have guided me during this research and writing journey.

**Abstract**

Timothy M. Teehan
IMPROVING INDUCTION OF NEW PRESCHOOL TO 12TH GRADE TEACHERS THROUGH DIFFERENTIATED INDUCTION ACTIVITIES TAILORED TO INDIVIDUAL TEACHER'S NEEDS
2017-2018
JoAnn B. Manning, Ed.D.
Doctor of Education

The purpose of the mixed methods pilot study, which used qualitative interview data and quantitative survey data, was to investigate the impact of providing induction activities tailored to individual teacher's needs on new preschool to 12th grade teachers in their first to fourth year of teaching. The district's attrition rate has been significantly higher than the 30% attrition rate experienced across the nation. This study asks: How can an individualized targeted multi-faceted induction program for teachers in the first to fourth year of teaching prepare individuals for the responsibilities of teaching? From the perspective of mentors, principals, and teachers in their first to fourth year of teaching, how have induction opportunities addressed identified areas of need? Which instructional areas does a differentiated multi-faceted induction program positively impact for teachers in their first to fourth year of teaching? To what extent has the multi-faceted induction program provided opportunities for mentoring, collaboration, professional development, and reflection? The findings show how using a multitude of induction activities tailored to each teacher's needs positively impacted knowledge, skills, and practices and had a high correlation to satisfaction.

## Table of Contents

**Table of Contents (Continued)**

**Table of Contents (Continued)**

**Table of Contents (Continued)**

**Table of Contents (Continued)**

**Table of Contents (Continued)**

## List of Figures

## List of Tables

**List of Tables (Continued)**

Table Page

# Chapter 1

## Introduction

A strong professional teaching force is the backbone of a robust educational system (Darling-Hammond, 2009) and successful teaching experiences occur in part as a result of receiving continuous support through collaboration, monitoring, and application of learned skills (Donne & Lin, 2013). Although new teachers came to their positions with varied levels of preparation, positive impacts on teaching experiences were achieved through the implementation of continuous support in an induction program that provided a multi-faceted approach tailored to identified individual needs. The induction approach supported new teachers by continuing to develop the knowledge and skills that impacted their evolution as teaching professionals.

The retention of teachers by schools and districts is vital to the continuity of instructional practices, which in turn impacts student academic achievement. In schools where teacher attrition rates are high, student academic performance is lower when compared to schools that retain their teaching staff (Ronfeldt, Loeb, & Wyckoff, 2013). As a result of longer retentions, teachers who remain within a school will have extended time to increase the opportunities to hone skills, improve instructional practices, and be exposed to varied experiences and training opportunities. Furthermore, an increased time teaching in a school has a greater potential to improve teacher quality when compared to a brief time spent teaching in a school.

Education policy concerns regarding teacher retention have been an issue for decades (Ingersoll & Kralik, 2004) and have been experienced across the nation in hard-to-staff schools, urban and rural settings, and in the suburbs. The impact of teacher

attrition on student achievement is being experienced especially among low-income and minority students in low performing schools, who are the stakeholders most hurt by teacher turnover (Grissom, 2009). The vicious cycle of teacher attrition impacting student academic performance, which in turn affects teacher turnover, continues to compound the retention problem (Barnes, Crowe, & Schaefer, 2007).

Teacher attrition is especially high in the first years on the job (Ingersoll, 2012). Richard Ingersoll (2001) found that from 1990-1991 190,000 new teachers entered the profession only to have an equivalent of 91% of those just hired leave the profession in the following 12 months. A similar pattern was experienced in 1993-1994 when 193,000 new teachers entered the profession with 213,000 or 110% leaving. Ingersoll (2001) determined that retirees only account for approximately 24% of those 213,000 that left. Ingersoll has modified his original estimations, which are more in line with other researchers' findings of a 30% attrition rate. In a 2010 report by Darling-Hammond, Ingersoll's original 50% attrition rate was determined to be an overestimation as a result of the inclusion of attrition rates of private school teachers who have a higher attrition rate than public school teachers. Furthermore, the original figure did not account for teachers who left the profession for a year or two for childrearing.

In 2005, Darling-Hammond and Bransford found that almost 33% of new teachers leave the profession within the first three years and 50% leave within the first five years. Of the teachers who remain in the profession, but leave their current assignment, 38.1% of those teachers moved from one school to another in an effort to seek better teaching assignments often in wealthier, better-performing districts (Alliance for Excellent Education, 2008).

The findings from the National Center for Education Statistics First Look study of public school teachers during the 2011-2012 school year revealed 84% of those teachers tracked remained at the same school. A more recently released version of the First Look report found that data from their five-year longitudinal study showed that 70% of the 2007-08 first year teachers remained in their schools after five years (Gray & Taie, 2015). The newer findings indicate teacher retention may not be as critical as originally determined. However, a significant teacher attrition issue still exists, which shows that 30% of those new to the profession are not remaining in their original schools. The revolving door impacts the continuity of quality instruction, which negatively influences student academic achievement.

In an effort to address teacher retention, school districts across the nation have adopted the implementation of one or more induction activities, which have been reviewed by various studies to determine outcomes. The studies found that a variety of factors impact teacher retention: mentoring programs, teacher salaries, personal characteristics, school characteristics, providing of professional development throughout careers, empowerment of teachers, work environments, and the education levels of teacher when entering the field (Ingersoll, 2001; Olsen & Anderson, 2007; Billingslevy, 2004; Cochran-Smith, 2004; Shen, 1997; Chapman & Green, 1986). Mentoring, an induction component that uses an approach where more experienced individuals provide counsel and guidance to junior members and is used by most districts, was found to be the support that new teachers desired (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009) and positively impacted teacher retention (Ingersoll & Kralik, 2004).

Components of the mentoring model have had positive effects on those being

provided support. Ingersoll and Strong (2011) examined 15 empirical studies and found that support and assistance for beginning teachers had a positive impact on retention, classroom instructional practices, and student achievement. The positive impact of mentoring is supported by an April 2014 survey conducted by the National Network of State Teachers of the Year and the American Institutes for Research where it found that mentoring provided the most benefit to new teachers (Behrstock-Sherratt, Bassett, Olson, & Jacques, 2014). Beginning teachers in New Jersey are mandated to be part of the state's formal mentoring program, which has the goals of providing an orientation to the district, establishing minimum mentoring requirements during the first weeks of employment, require the district to provide mentor support activities for the novice teacher, require a log of contact time between mentor and novice teacher, and assigns the chief school administrator (CSA) the responsibility to develop a district mentoring plan (State of New Jersey Department of Education, 2014). In 2012, the TEACHNJ Act was passed, which mandated a mentoring support system and extended the mentor timeline from one year to two years for novice teachers. The Act stipulates that a novice teacher should be paired with an experienced mentor teacher who provides observations of and feedback to the novice teacher. In addition, modeling and confidential support and guidance are suggested to be part of the mentoring experience. Although mentoring was extended to two years recently, an accountability and compensation system was not included in the second year of the mentoring process. Since, the responsibility to develop a district-mentoring plan is in the hands of each district's CSA, mentoring is being implemented differently across the state resulting in varied experiences for novice teachers being mentored.

Although mentoring has demonstrated a positive impact on new teachers, the combination of mentoring with other induction elements, especially collaborative practices, reduces a new teacher's sense of isolation and provides support that has the potential of leading to improved professional practices (Darling-Hammond, 1998; Greenlee & Dedeugd, 2002). In addition, Bickmore and Bickmore's (2010) study found that in a multi-faceted induction support system if one induction approach failed, another would be able to fill the gap and lead to positive participant perceptions. The National Commission on Teaching and America's Future's two-year study found that teacher preparation programs need to increase teachers' knowledge in order to meet the demands of teaching and schools need to be redesigned to support high quality teaching and learning (Darling-Hammond, 1996).

In conclusion, the blending together of these findings demonstrates a need for school districts to develop and implement a multitude of quality induction activities. The outcome will be meeting the needs of novice teachers, job satisfaction being realized, and higher retention rates of novice teachers. Improved teacher retention will permit longer time spans for teachers to hone their teaching knowledge and skills. Induction programs complete with mentoring and collaboration opportunities will positively impact teaching practices and job satisfaction.

## Problem

The issue of high attrition rates of first year teachers is being experienced in districts across the nation (DeAngelis & Presley, 2011) and more specifically in the Centerville Public School District (a pseudonym for the district where the pilot study took place) located in the Northeastern United States. Teachers in their first four years of

being employed by the Centerville Public School District, an ethnically diverse low-income suburban P-12 school district, have been experiencing high rates of attrition. This has resulted in teacher turnover that has been voiced as an issue of concern by parents, teachers, board of education members, and the administrative team. An analysis of Centerville Public School District's internal data revealed that for the 2013-2014 school year, the teaching staff in their first four years of teaching experienced a 45% attrition rate. The 2014-2015 teacher group experienced a 20% attrition rate. For the 2015-2016 group, a final attrition rate of 40% was experienced. These attrition rates are approximately the same as the 40% rate found in New Jersey for 2011-2012 (Jandoli, 2013) and higher than the 14% to 30% national attrition rates found by other researchers (Gray & Taie, 2015; Marshall et al., 2013). Although the attrition rates of 40% for New Jersey for 2011-2012 were partly due to retirements, Centerville's data did not include retirement data. The teacher attrition rate was due to non-renewal of contracts and non-tenured teachers electing to leave the district of their own decision. Centerville Public School District's recent three years of data significantly elevated the local level of concern over teacher turnover. These high attrition rates are of significant concern for the district's administration and Board of Education and have been the genesis for Centerville Public School District's creation of differentiated induction activities targeted to individual needs of teachers new to the district.

As high numbers of new staff members are hired and mentored on a yearly basis, the high turnover has put additional responsibilities on mentor teachers and administrators in Centerville Public School District. Since 2012, 46 different teachers have served as mentors, with 15% having been appointed mentors more than once. The

process has impacted the district through the accruing of costs related to advertising for open positions, increased time spent by personnel committee members in reviewing resumes and conducting interviews, disruption of schedules, and increased allocation of time for familiarizing new staff to the district.

A concern existed among parents, board of education members, administration, and teachers that the district was not providing adequate or targeted guidance and induction support for the district's newest teachers. A multitude of avenues are provided to parents and community members to share their thoughts and beliefs about the educational environment of Centerville: Superintendent Brown Bag Lunches, Principal Chew and Chat, district climate surveys, and an open online forum facilitated by the superintendent. Through these various paths of communication, parents across the district voiced concerns about the abilities of novice teachers to provide superior quality teaching, engaging instructional practices, forming connections to the students in the classroom, and ability to effectively manage the classroom environment. In addition, parents expressed their displeasure of the frequent turnover of teaching staff. Through the teachers' association, the collective voice of the teachers conveyed their beliefs that not enough support was being provided to teachers new to the district. The association leadership conveyed their displeasure about the frequent non-renewals and resignations of new staff and the need to constantly be interviewing to fill the vacancies. The association felt the revolving door was putting a strain on mentor teachers and the district was unable to build a cadre of veteran staff members to serve as resources for others in the district. Since the community had a direct line to the members of the Board of Education, the members were hearing an echo of the same concerns. The Board

members communicated their fears that novice teachers were not being provided adequate supports, which would equip them to implement engaging and meaningful lessons. The lack of improvement of instructional practices were a concern due to the impact it had on student learning and school performance data. As a result, it was believed that inadequate induction practices may have resulted in poor teaching quality along with increased teacher dissatisfaction within the district's newest teaching members, which potentially impacted attrition rates, as well.

## Purpose of Study

The purpose of the pilot study was to prepare new preschool to 12th grade teachers for the task of teaching and improve instructional practices by providing a multitude of differentiated induction activities tailored to each new teacher's needs. The induction activities provide opportunities for collaboration among new teachers within the district and between new and experienced teachers. Improved preparation, knowledge base of instructional practices, and career satisfaction were realized when teachers were supported and empowered in improving instructional practices, which has the potential to positively impact student academic achievement and teacher retention rates.

The induction experience was based on a community of inquiry, which is comprised of cognitive, social, and teaching presence (Garrison, Anderson, & Archer, 2001) and determined by an interpretation that was more reasonable than others (Stringer, 2014). In the study, the community of inquiry was accomplished through the involvement of participants that were new to teaching in the Centerville Public School District. The participants provided first-hand insights into how differentiated induction activities influenced their instructional practices and resulted in satisfaction with their

teaching environment and experience. Garrison et al. (2001) explained that cognitive presence is the extent to which participants are able to construct meaning through sustained communication. This occurred throughout induction activities as participants drew relationships between teaching practices, encountered situations, and induction activity experiences. Social presence is described as the ability of participants to project their personal characteristics into the community of learners while supporting the cognitive presence through facilitation of critical thinking. Since the induction learning experiences were differentiated to individual needs, the experience was a personalized one where the teacher had choice in engaging in certain induction components.

Centerville Public School District improved induction of new preschool to 12th grade teachers by providing differentiated induction activities tailored to each new teacher's needs during a four-year induction time period. In New Jersey, tenure is achieved after working in the same district for four years, which correlates to the length of time used by Centerville for their induction program. The district supported, empowered, and equipped teachers with the knowledge, skills, expertise, and models of best practices through a comprehensive multi-pronged induction approach. Every new teacher in the first four years with the district was afforded choices from a multitude of induction opportunities consisting of mentoring, small peer group meetings, individualized professional development opportunities, observations, reflection opportunities, conferencing, and collaboration. The desired outcome expanded pedagogical knowledge, improved instructional practices of novice teachers and achieved satisfaction levels consistent with those indicating the likelihood of remaining in the job.

As an extension benefit, teacher retention and student academic achievement is expected to improve.

Determination of meeting the objective was ascertained through the conduction of a mixed method research pilot study, which gathered perceptions from new teachers, mentors, and building administrators. The feedback from participating new teachers was used to ascertain that the multi-faceted differentiated induction approach met the instructional needs of new teachers. Furthermore, the information was used to gauge if teachers were being properly equipped for their teaching position and provided insight into the quality and meaningfulness of provided induction opportunities.

The pilot study actively involved participants by encouraging them to be reflective of each induction activity's experience and each activity's effect on instructional practices, knowledge, and teaching skills. At the same time, participants personally gained insights into the benefits of a multi-faceted individualized induction program and provided the researcher with insights, as well. The approach followed constructivism, which comes to understand the nature of knowledge and learning through an approach of actively involving individuals in the process of thinking and learning and by focusing on how individuals learn (Ornstein & Hunkins, 2009). Reflection is a primary component that is needed as a means to critically view oneself in order to determine areas of need and the degree of preparedness in taking on the responsibilities of teaching, which better inform the participant of his or her areas of needed development. The study method was conducive to the environment already in existence in the district, which fostered a community of learners where all participants collaborated to gain a better understanding of topics of focus and themselves. Furthermore, the study

empowered participants to share experiences with the researcher, mentors, induction activity providers, and other participating new teachers and encourage new teachers to seek differentiated induction activities that addressed their individual needs.

**Research Questions**

This mixed methods research pilot study explored the relationship between the use of differentiated multi-faceted induction activities and their impact on new teacher instructional practices and job satisfaction. The study was guided by the following main research question and sets of qualitative and quantitative sub-research questions.

Main Research Question:

1. How can an individualized targeted multi-faceted induction program for teachers in the first to fourth year of teaching prepare individuals for the responsibilities of teaching?

Sub-Research Question - Qualitative:

1. From the perspective of mentors, principals, and teachers in their first to fourth year of teaching, how have induction opportunities addressed identified areas of need?

Sub-Research Questions – Quantitative:

1. Which instructional areas does a differentiated multi-faceted induction program positively impact for teachers in their first to fourth year of teaching?
2. To what extent has the multi-faceted induction program provided opportunities for mentoring, collaboration, professional development, and reflection?

## Conceptual Framework

The pilot study was guided by Ingersoll (2012), Darling-Hammond and Bransford's (2005), and Gray and Taie's (2015) latest findings which indicated that the field of education is not retaining approximately 30% of teachers in their first five years of teaching. The high attrition rates are a result of a lack of providing adequate new teacher induction support, which contribute to inadequate teacher preparation and job dissatisfaction. In order to create successful novice teachers, Wong and Wong (2001) stress that schools need to provide people and plans to assist in learning to teach, a trained mentor that follows a uniform mission, and a multi-year induction program that welcomes new staff. Poor preparation in the areas of instructional knowledge, skills, and practice were the result of novice teachers not being provided ample and targeted supports.

Job satisfaction was created when new teachers experienced job comfort and job fulfillment as a result of being prepared for teaching. These results occurred as a result of the implemented multi-faceted targeted induction approach during the first four years of teaching in the district as depicted in the following conceptual framework model (Figure 1).

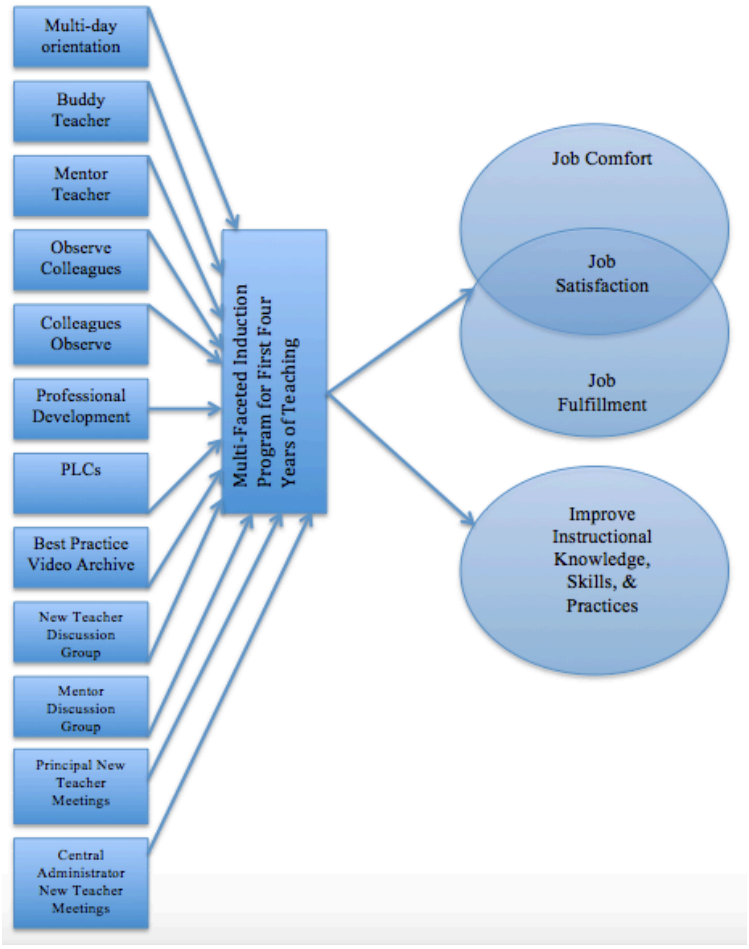



*Figure 1.* Conceptual framework model.

## Significance of the Study

The results of this pilot study can be used to inform local, state, and national practice, policy, and larger research studies in regards to the creation and implementation of teacher induction programs. Improvement of educational institutions' understanding of the impact induction activities have on novice teacher's instructional knowledge, practice, and job satisfaction will enable schools and districts to develop a multi-faceted induction program that will meet the needs of their teacher population. As a result, educational policymakers may be prompted to construct a comprehensive induction

program reform with an objective of ensuring improved new teacher quality and preparedness for the challenges of teaching.

**Policy**

The findings from this pilot study can advocate for further investigation of the benefits of crafting policies that will mandate districts create a differentiated induction program for teachers new to the profession and provide the induction experience throughout the first four years of employment. By doing so, districts would be ensuring they have provided ample support and guidance for teachers during their pre-tenure years. Additionally, since school districts strive to place high quality teachers in classrooms, the retention of teaching staff that are prepared for the associated responsibilities of teaching and satisfied in their preparation can be supported through a career long induction program as teachers go through the various phases of their careers.

**Practice**

The field of education in New Jersey is holding teachers and school districts to a higher degree of accountability than previously experienced as demonstrated in the specifics under AchieveNJ and Every Student Achieves Act. The increased focus is intentional in driving teachers in the profession to critically reflect on their knowledge, skills, and instructional practices and to seek out professional learning opportunities and supports targeted to their specific needs. Secondly, a differentiated induction program for new teachers provides the necessary knowledge and skills to develop new professionals into successful practitioners, who will find satisfaction in their chosen profession.

**Research**

The findings from this pilot study could be used to extend the understanding of the impact induction opportunities have on teacher preparedness and teacher satisfaction with not just novice teachers, but determine if the influence extends to educators further along in their careers, as well. Secondly, a future more extensive study could be conducted to determine if teachers that have engaged in a multi-year and multi-faceted individualized induction program has a direct correlation to student achievement. By extending this understanding, it could serve as an impetus for districts to create differentiated induction programs targeted to their teacher's needs regardless if policy is enacted mandating such a program or not.

**Leadership**

Since school leadership has been found to be an influential factor in teacher and student success, the findings from the pilot study could compel school leaders to consistently use formal and informal teacher observation data to assist in determining individual teacher needs and provide the guidance and support to meet those identified needs. Furthermore, leadership could work collaboratively with other educational professionals to develop and offer additional induction activities that are not currently available within districts, but are beneficial to novice teachers.

## Definition of Key Terms

The study used some unique terms that are defined as the following:

1. Attrition refers to the number of teachers who leave teaching altogether or move to other schools, districts, or move to different jobs within education (Ingersoll, 2001).

2. Job Comfort refers to the satisfaction with job conditions and circumstances (Evans, 1998).
3. Job Fulfillment refers to an assessment of how well an individual is performing on his or her job, which is influenced by others and one's own sense of personal achievement due to performance in components of the job (Evans, 1998).
4. Job Satisfaction refers to how a person feels about his or her job, which includes different facets of the job (Brewer, 2003). A state of mind based on an individual's perceptions of his or her job-related needs being met (Evans, 1998).
5. Stress refers to a state in which teachers are afflicted in ways that negatively affect physical and mental health (Porter, 2007).

**Summary**

For individuals new to the teaching profession, the data clearly depicts a high percentage of teachers leaving their school or the profession within the first five years on the job. Teacher preparedness is an influential factor in determining teacher satisfaction and retention and by extension, student achievement. Teachers in their beginning years of teaching often experience a sense of loss and feel unprepared for the challenges presented in teaching. By providing differentiated induction activities targeted to individual teacher needs, teacher preparedness, instructional knowledge, skills, and practices were improved, which resulted in levels indicating teacher satisfaction.

## Chapter 2

## Literature Review

Too few teachers are coming into the profession and too many leaving, as demonstrated by the staggering level of teacher turnover and attrition on a national level (National Commission on Teaching, 2002). The exodus of novice teachers is of special concern since without an experienced teaching work force the goals of providing a world-class education are in danger of faltering (Rhodes, Nevill, & Allen, 2004). Teacher satisfaction is central to developing a teaching profession that is adequately equipped to provide students engaging learning experiences. Dissatisfied teachers leaving the profession lead to a revolving door effect in our nation's schools, especially in urban and low-income settings that serve our most at-risk students.

This section of the dissertation will review the scholarly literature related to teacher induction and satisfaction, which impacts teacher attrition and retention. The literature review is divided into six parts: Teacher satisfaction, induction, professional development, preparation, attrition, and retention. Teacher induction, professional development, and preparation impact teacher satisfaction levels. In turn, the satisfaction levels affect teacher attrition and retention rates.

### Job Satisfaction

In order to improve job satisfaction, one must start by being able to define it. A simplistic definition of job satisfaction can be presented as how a person feels about his or her job, which includes different facets of the job (Brewer, 2003). That basic definition can be further developed by using Evans's (1998) two different components in defining job satisfaction; job comfort and job fulfillment. Job comfort relates to how

satisfied an individual is with the job's conditions and circumstances. On the other hand, job fulfillment involves a self-assessment of how well an individual performs his or her job and a personal sense of achievement due to performance in components of the job, both of which may be influenced by an assessment conducted by others in those same areas. Evan's (1998) job comfort and fulfillment is supported by Neuman, Reichel, and Saad (1988) who defined job satisfaction as a function of the work in which one is engaged, which includes feelings of achievement, performance feedback, autonomy, and a sense of challenge.

Job satisfaction studies are not a new phenomenon and can be traced back to 1911 when Fredrick Taylor studied employees and their work responsibilities with the intent of providing workers better training methods (Taylor, 1911). Later, in 1959, Hertzberg developed the Two-Factor Theory, which concluded that there were one set of factors in the workplace that caused satisfaction and a different set of factors that caused dissatisfaction and each acted independently of the other (Hertzberg, Mausner, & Snyderman, 1959). In order to improve overall job satisfaction, both must be recognized and addressed.

The factors that will impact job satisfaction can be divided into three areas: environmental, psychological, and demographic (Crossman & Harris, 2006). Environmental is the job itself and the working situation. The psychological factors are those that involve the personality, behavior, and attitude of the worker, which impact a teacher's feeling of being worn out and trapped (Tye & O'Brien, 2002). The demographic area can be divided into those teachers that are ready to retire and newer teachers that are leaving education due to being disillusioned (Tye & O'Brien, 2002).

Through the understanding of a job satisfaction definition, one can begin the work of determining if a worker is satisfied or not. Once the satisfaction level is determined, a targeted approach to addressing the areas causing a lack of satisfaction can be developed and implemented.

**Teacher Satisfaction**

The field of education is challenged with the responsibility to ground new teachers, help them grow in confidence and experience, and give the novice teachers support in their selected career choice (Jandoli, 2013). When a school or district adequately nurtures and supports its new teachers, the impacted teachers will likely experience job satisfaction, which has the potential to result in a desire to remain and grow in the teaching profession. In order to achieve this outcome, an understanding of what causes a teacher to be satisfied or dissatisfied with a teaching position needs to be realized. Therefore, an effective approach can be developed and implemented to bring about job satisfaction within teachers.

Teacher satisfaction can be improved by focusing on various areas: work environment, principal effectiveness, professional communities, autonomy, and self-efficacy of instructional strategies. Observable measures of a teacher's work environment, including the principal's effectiveness, are more positive in schools with low numbers of disadvantaged students (Grissom, 2011). The effectiveness of the school principal has been found to be an important element of teacher working conditions and can enhance teacher satisfaction levels (Saiti & Papadopoulos, 2015). Although principal impact on student achievement is indirect, the position influences students by creating a

school environment conducive to learning by creating a stable teaching workforce (Grissom, 2011; Tamir, 2013).

Teachers that left high-poverty schools did so due to poor working conditions that made it difficult for teachers to teach and students to learn and not due to a desire of teachers to flee teaching the students (Simon & Moore Johnson, 2015). Simon and Moore Johnson (2015) found that the most desired working conditions that predict teacher satisfaction were when school leadership supported teachers, opportunities were provided to form collegial relationships, and the elements of a positive school culture were present. Furthermore, a school's culture is influenced by the school leaders, who are the individuals having a significant impact on the career commitments of teachers (Tamir, 2013).

Stearns, Banerjee, Moller, and Mickelson (2015) found that professional communities, collaboration, and teacher control were all predictors of teacher satisfaction. The importance of collaboration with colleagues is further evidenced by Todd Lawrence, an educator and founder of NJSchoolJobs.com, who attributes teacher satisfaction in his district due to supports provided by grade-level professional learning communities (Jandoli, 2013). The professional communities provide the teachers with opportunities to share experiences, problem-solve presented situations, and grow as a teaching professional. When provided opportunities to engage in professional development, teachers were most satisfied when the programs were long-term, focused on student learning, and linked to the curriculum (Nir & Bolger, 2008), all of which are integral parts of professional learning communities.

Teachers were found to be satisfied when they possessed classroom management skills along with a repertoire of instructional strategies (Klassen & Chiu, 2010). Autonomy is improved when teachers are equipped with the requisite knowledge and skills. Renzulli, Macpherson Parrott, and Beattie (2011) found that teachers that had greater autonomy were less likely to leave teaching and experienced higher levels of satisfaction. Therefore, improved self-efficacy, or the ability to produce a desired result or effect by oneself, leads to greater job satisfaction. In other words, when teachers are provided with the knowledge and skills to be effective educators, they are more likely to be autonomous and find satisfaction in their jobs.

The areas deemed as important in contributing to teacher satisfaction must be an integral part of a school system's induction program. If novice teachers continue to become dissatisfied, schools will be left with an inexperienced workforce that will struggle to meet student needs, which as a result will diminish levels of student achievement in schools.

Although the identified areas of satisfaction, if not addressed will lead to dissatisfaction, one must also review areas, circumstances, and experiences outside of these identified areas that led to teacher dissatisfaction, as well. NJEA conducted a 2012 poll that found that 70% of teachers felt that morale had worsened over the past few years and were due to personal and organizational reasons (Jandoli, 2013). As part of the reasons for poor morale, it was found that new teachers were unprepared, lacked classroom management skills, and lacked the ability to problem-solve encountered teaching and learning issues. On an organizational level, teachers felt a lack of

autonomy, heavy workloads and class sizes, lack of parental support, feeling isolated, poor working conditions, low salaries, and lack of administrative support.

Although some of these identified areas of dissatisfaction may be beyond the direct control of school leadership, the impact they have on teacher satisfaction should be recognized and buffered whenever possible otherwise teacher attrition rates will continue to climb. An induction approach using differentiated induction activities can address many of these areas of concern that have led to dissatisfaction.

**Teacher Induction**

Teacher induction can be defined as an assimilation process of the traits of a culture of teaching for a novice teacher to the profession (Boyer, 2005) or as a systematic process that meets new teachers' personal and professional needs (Bickmore & Bickmore, 2010). Furthermore, induction can encompass many different activities including classes, workshops, one-on-one mentors, orientations, seminars, a teacher-learning network, inquiry groups, electronic dialogue journals, professional development sessions, and/or the formation of a simple buddy system or critical friend during the initial beginnings of employment in a school (Broemmel, Swaggerty, & McIntosh, 2009; Hammerness & Matsko, 2012; Ingersoll & Kralik, 2004; Ingersoll, 2012). The length of the induction program can vary, as well, from one year to more than three years (Bartlett & Johnson, 2010). Smith and Ingersoll (2004) found that effective induction programs require more than mentoring and should be comprised of induction packages.

Regardless of the scope or length of an induction program, the induction experience affects teacher quality and retention (Kelly, 2004). The outcome of induction depends on the number and types of supports received by novice teachers with the impact

of mentoring being influenced by having a mentor from the same subject area and having collaboration time with other teachers from the same subject area (Ingersoll, 2012).

Even with government mandates regarding mentoring, the quality and focus of mentors and mentoring programs vary greatly (Scherff, 2008). School districts and mentors can tailor the induction and mentoring experience by identifying the strengths and needs of each of its novice teachers. The work of any induction or mentoring system will extend beyond new teachers or mentors into the school environment and personnel (Moir, 2009). Key findings by Moir over her 20 years of collecting feedback data consists of induction systems requiring a system wide commitment to developing teachers, the ability of induction programs to accelerate teacher effectiveness, leadership's need to build a culture of learning, combining mentoring with communities of practice, online communities extending the mentoring experience, and work environments being able to encourage or discourage good teaching, which impacts student learning and teacher retention (Moir, 2009). Where mentoring is promoted and valued, new and experienced teachers benefit with new teachers being more likely to remain teaching in their schools, thus, avoiding becoming an attrition statistic (Kardos, Johnson, Peske, Kauffman, & Liu, 2002). However, novice teachers often leave the classroom or change buildings before developing the needed skills or forming relationships with students, which increases the negative impact on student achievement (Hammerness & Matsko, 2012).

Mentors have been used as a part of induction programs since the mid-1980s, yet, mentor teachers are rarely provided special training on how to be an effective mentor (Howe, 2006). Mentoring was found to be a critical topic in positively influencing

teacher retention and is a key component of effective induction programs (Hallam, Chou, Hite, & Hite, 2012; Feiman-Nemser, 1996). The Hallam et al. (2012) study collected both qualitative and quantitative data through a comparable case study method with the goal of investigating mentoring models used within two school districts. The study found that in-school mentors and collaborative teams were found to be more effective than coaches. New teachers reported that benefits of mentoring were experienced when they received assistance from mentors with lesson and unit plan development, were able to observe their mentor and be observed by their mentor, and shared the same planning period (Andrews & Quinn, 2005; Gilbert 2005).

Feiman-Nemser (1996) calls for mentoring to go beyond the first year of teaching, linked to a vision of good teaching, and surrounded by a culture of collaboration and inquiry. The importance of training, support, and assessment during a teacher's first years positively influences teachers to remain in the classroom long enough to make a positive difference in the education of students (Alliance for Excellent Education, 2008). Addressing teacher needs extends beyond the first year and must be a cog within the wheel of an environment of colleagues working together for the common goal of improving teacher practices (Bartlett & Johnson, 2010).

**Teacher Professional Development**

Professional development is one component of a multi-faceted induction program. When comparing induction practices provided in various countries, teachers in the United States have very limited time set aside for professional learning or collegial work during the school day (Darling-Hammond, 2005). Northern Ireland and Israel have national induction policies, but both have experienced varied implementation practices, which

have led to uneven outcomes (Anthony, Haigh, & Kane, 2011). By contrast, Germany has two years of pedagogical training in conjunction with a mentored classroom experience (Darling-Hammond, 2005; Howe, 2006), while Japan provides 20 in-service training days during a teacher's first year in the profession along with 60 days of professional development (Darling-Hammond, 2005). Also, Japan provides reduced teaching loads, training with mentor teachers twice a week, and weekly out of district trainings. New Zealand provides reduced teaching loads for the first two years, reflective writing experiences, collaboration with other new teachers, targeted professional development, and observation of colleagues (Anthony et al., 2011). Each of these findings are in stark contrast to the inconsistent quantity and types of professional development provided in the United States for novice teachers.

The literature demonstrates that professional development can have a powerful impact on the retention of members new and existing in a profession and is an important component of a teacher induction program. The key component to professional development is that experiences provide participants with the ability to collaborate and problem solve with colleagues, offer learning opportunities targeted to identified needs, and provide a sense of empowerment within the process. Based on compiled literature regarding the benefits of professional development and the varied approaches implemented, the desired outcome of a tailored professional development plan as part of an induction program in the Centerville Public School District was to prepare novice teachers for the demands of the profession, which will improve teacher satisfaction levels resulting in a reduction of attrition rates of teachers new to the profession.

In related fields outside of education, professional development is being implemented as part of induction programs to improve retention. In the field of librarians, professional development is being used as a tool for retention of underrepresented academic librarians. The Training Institute for Library Science Interns and Residents in Minnesota offered a professional development program where participants for the first time had an opportunity to collaborate with colleagues and provide each other ongoing support and encouragement (Kofi Acree, Epps, Gilmore, & Henriques, 2001). Similar practices can be found in nursing, as well. The American Association of Colleges of Nursing (2009) found that a lack of knowledge leads to frustration, which decreases job satisfaction and increases attrition. A longitudinal panel survey of 422 hospital employed registered nurses between the ages of 45 and 64 found that having professional development training available with practices targeted to older nurses resulted in increased satisfaction with professional development opportunities and satisfaction with the organization, which had an outcome of retention of this age group of nurses (Armstrong-Stassen & Stassen, 2013). For nurse educators, Baker (2010) conducted a literature analysis focused on best practices of new faculty orientation. A post self-assessment survey was given to participants after completion of a new faculty orientation and it was found that providing open group discussion times for problem-solving sessions ranked the highest. The orientation program had only one of the original eleven participating faculty members leave, resulting in a 91% retention rate (Baker, 2010).

As has been demonstrated in library science and nursing, teachers new to education can experience a positive impact from professional development. Studies in

the fields of library sciences and nursing further demonstrate the ability to improve retention of members through the providing of professional development practices for new members and those that have matured in their careers (Baker, 2010; Kofi Acree et al., 2001). Each of these studies demonstrated that during any phase of a career, professional development with opportunities to collaborate with peers had a positive impact on improving knowledge and skills and positively impacted satisfaction levels and retention within the field.

**Teacher Preparation**

Teacher preparation begins before a teacher ever steps foot into the classroom. When students emerge as graduates from pre-service teacher programs, many may not be fully prepared to take on the varied responsibilities that are part of being a classroom teacher. As evidence of this perspective, for teachers responsible for providing reading instruction to students, Washburn, Joshi, and Cantrell (2011) found that on average, pre-service programs are not adequately providing candidates with information about basic language constructs and other components related to scientifically-based reading instruction. Washburn et al. (2011) found that skills related to basic language constructs, like syllable counting, were present, but pre-service teachers did not possess explicit knowledge in other literacy areas, such as phonics or an understanding that dyslexia is a problem with phonological processing.

Likewise, Roth, McGinn, and Bowen (1998) found that in science, pre-service teachers were not ready to teach scientific and mathematical practices according to the expectations of NCTM. They found that pre-service teachers were not able to engage in

practices that professional scientists use automatically, such as, observing patterns, building patterns, and seeing regularities.

A case study conducted by Fehr and Agnello (2012) to measure the extent to which pre-service teacher programs were cultivating the appropriate awareness, skills, and dispositions in their candidates to teach diverse students used a survey instrument that gauged future teachers' preparedness, willingness, and comfort with teaching diverse students. The findings revealed a superficial understanding for what should be included in P-12 multicultural education, a limited ability to list a number of types of diversity, and a 38% rate for being able to describe culturally responsive teaching. These findings indicate that teachers and students could benefit from teachers cultivating an understanding that a diverse student population may require additional knowledge and skills in order to meet the needs of these learners.

All professions include learning that takes place on the job and the teaching profession is no different. However, prior to novice teachers taking an official teaching assignment, novice teachers should be sufficiently prepared for the responsibilities associated with teaching. Preparation should include building strong subject matter knowledge, understanding how students develop and learn, knowing how children acquire and use language, able to use professional knowledge to address student needs, and being aware of the social purposes of education (Bransford, Darling-Hammond, & National Academy of Education, 2005). Furthermore, pre-service teachers should understand content demands and approaches to teaching specific subject matter to diverse learners, understand how to effectively manage a classroom, be able to assess student

performance, and meaningfully integrate technology into lessons and learning (Bransford et al., 2005).

After an education graduate secures a teaching position, ongoing learning takes place while working on the job. Many of the learning that takes place will be enhancements of the knowledge acquired during college coursework, but will be based on the current school environment of student needs presented in the classroom. When beginning the first school year, a new teacher needs to understand the power and benefit of conveying positive expectations, creating an effective classroom management plan, understanding how to handle misbehaviors, and being able to maximize academic time (Wong & Wong, 2001). As novice teachers embark on the teaching journey, they will need to increase professional skills, improve the ability to work cooperatively, be able to lead and encourage others to work productively, be reflective on their own needs, and seek professional learning opportunities that will further develop identified areas of need (Wong & Wong, 2001).

These examples indicate the need of induction programs to serve as a means to bridge the gap between the knowledge and skills gained during pre-service teaching preparation and the realities of being responsible for and effectively taking on the tasks of leading the instructional practices within a classroom. The provided evidence indicates that pre-service teachers are coming to the classroom with limited real-world teaching knowledge, skills, and experiences. This realization has been identified and partially addressed by the New Jersey State Board of Education when in 2014 newly adopted regulations required a 3.0 Grade Point Average (GPA) to enter into a teacher preparation

program and a 2.75 GPA requirement to apply for and receive certification upon program completion (New Jersey Department of Education, 2015).

Due to these realities, it is evident that some new teachers struggle in various aspects of teaching that have been traditionally learned through trial and error. A haphazard approach of learning for new educators leads to job frustration and impacts the quality of instruction, which does not benefit students. The high attrition rates are a calling to districts to move away from operating under the ideologies of "sink or swim" (Darling-Hammond, 1996) or "baptism by fire" for its newest members and instead move towards developing and implementing induction programs that achieve the goal of adequately preparing and retaining its new teachers and providing pre-service teacher preparation coupled with ongoing professional development to address identified needs.

Often existing teacher professional development consists of one-shot workshops, which result in inadequate preparation and limited opportunities to enhance knowledge and skills over the course of a career (Darling-Hammond, 2005). An induction framework should extend beyond the first year of teaching and provide teaching professionals varied levels, types, and number of exposures to learning experiences. As a result, provisional teachers are exposed to a broad resource network not previously part of most state mentoring systems. Teachers participating in a comprehensive induction program are empowered through the provision of learning opportunities that extend knowledge and contribute to the betterment of colleagues.

Through mentoring programs instituted by the state, new teachers are provided a mentor teacher through their district, but a specific program of how to mentor is not delineated (Wang & Fulton, 2012). The result is an uneven form of guidance limited due

to a lack of mentor' training and reliant on mentoring that is influenced by each mentor's individual knowledge, skills, and experiences. The existing approach is not as encompassing as an induction program that provides various components beyond simple mentoring.

As professional needs of new teachers are met, a high level of satisfaction in the working environment and profession and will experienced and result in a continuation of employment (Johnson & Birkeland, 2003). The decrease in mobility of new teaching staff will result in a growing understanding of instructional practices and a stability of the district's teaching team, which will positively impact student, building, and district performance (Guin, 2004). By providing professional development as an additional component of an induction program, the novice teacher will be further supported as instructional practices are honed and knowledge and skills are expanded.

**Teacher Attrition**

Teacher attrition rates have increased by approximately one-third in the past two decades, resulting in an increase of beginner teachers in education, a group that is less likely to remain in the profession (Ingersoll, 2012). The problem is exacerbated in the special education arena. It is easy to determine the impact the problem will have on some of the most academically struggling students in the nation's schools when comparing general teacher turnover of 14% to 15% annually to the beginning special education teacher turnover rate of close to 40% that will leave within their first five years (Marshall et al, 2013).

Schön (1983) posits that situations encountered in teaching practice are complex and uncertain. The isolation of teachers in their classrooms works against reflection-in-

action; a process of thinking about what is happening as action is taking place. The struggles experienced by new teachers in transitioning the knowledge gained from college coursework into the realities of teaching can result in shock and paralysis (Corcoran, 1981). The effort to retain teachers by limiting isolation has been spearheaded through the improved participation in formal induction programs. The efforts have resulted in a doubling of teacher induction program participation as evidenced by the increased rates to 80% by the 1999-2000 school year (Smith & Ingersoll, 2004) and 91% by 2008 (Ingersoll, 2012).

Billingslevy's (2004) critical analysis of the research literature on teacher retention and attrition identified four major themes that contribute to attrition: teacher characteristics and personal factors, teacher qualifications, work environments, and teacher reactions to work. In a similar study, Cochran-Smith (2004) identified additional attrition reasons being due to low salaries, student discipline, lack of support, and little opportunity to participate in decision-making. Richard Ingersoll (2003), using data from the Schools and Staffing Survey and its supplement, the Teacher Follow-up Survey conducted by the National Center for Education Statistics, found that the most significant reasons teachers were dissatisfied and chose to leave their positions were due to poor salaries, poor administrative support, student discipline problems, poor student motivation, and lack of faculty influence and autonomy. These findings show that when teachers experienced a lack of control in and disconnection from the working environment, they will become dissatisfied in their career.

Although the Billingslevy (2004), Cochran-Smith (2004), Shen (1997), Olsen and Anderson (2007), and Ingersoll's (2003) findings appear to differ from each other to a

degree, common threads can be identified. Concerns about low salaries, lack of support, and opportunities to influence and participate in decision-making are shared by all five research groups. Although teacher salaries are subject to local financial resources, other areas can be targeted in an effort to address teacher attrition. Schools and districts can improve the work environment by providing teachers needed supports in instruction, student-interaction, and classroom management, while increasing knowledge pertaining to effective instructional practices. By doing so, teachers will be prepared to teach, which will result in higher satisfaction levels and positively influence teacher attrition rates. Such preparation requires districts to ensure they are providing ample training in targeted identified areas of need, particularly through an induction system that delivers support and empowerment of teachers.

**Teacher Retention**

Since teachers have been identified as the single most important factor that influence student achievement, the retention of quality teachers should be a primary focus for schools (Darling-Hammond, 2000; Rivkin, Hanushek, & Kain, 2005; Sanders, Wright, & Horn, 1997). Teacher retention is a struggle being experienced by school districts across the nation. In order to better understand the factors that drive teachers from the classroom, a review of what entices teachers to stay in a teaching position, school district, and school community is vital to gaining needed insights to appropriately address the retention issue.

Olsen and Anderson (2007) studied new teachers in urban education and found that new teachers remain in schools and districts if they have the opportunity to adopt multiple educational roles within and outside the classroom and receive professional

support during the whole of their careers, not just during their initial induction into the profession (Tournaki, Lyublinskaya, & Carolan, 2011). These findings demonstrate the importance that should be placed on empowering teachers and providing professional support throughout teacher careers.

Through the use of discriminant function analysis, a statistical analysis that is useful in determining whether a set of variables are effective in predicting membership in a category, Shen's (1997) study, using data gathered from the School and Staffing Survey and the Teacher Follow-up Survey, focused on factors that improved career longevity within teaching. The analysis found that stayers in the profession could be distinguished by personal characteristics, school characteristics, and perception of school and profession-related issues including policy, career ladder opportunities, empowerment of teachers, providing teacher incentives for working with disadvantaged students, and utilization of a multiple perspective approach to retention and attrition.

The complexity of teacher needs that lead to teacher professional growth and retention are further supported by the findings of Berhrstock-Sherratt, Bassett, Olson, and Jacques (2014) when they surveyed National and State Teachers of the Year on their rankings of experiences that developed their effectiveness as teachers. The findings identified the most important experiences and supports were access to a mentor, collaboration with colleagues, common planning time, professional learning communities, self-developed professional growth plan, self-reflection opportunities, access to a supportive principal, placement that aligned to their talent, training, and certification.

The issue of teacher retention is complex and influenced by multiple factors that do not only affect individuals new to the profession, but also impact teachers throughout their careers (Shen, 1997; Olsen & Anderson, 2007; Berhrstock-Sherratt et al., 2014). Since the issue is complex, an effective approach considers teacher needs as a primary component of any implemented plan. The intended outcome of the implemented approach is to improve teacher retention through the improvement of teacher satisfaction levels.

The findings have implications for teacher education programs, school administration teams, and public policy development, all of which are concerned with the quality of schooling (Chapman & Green, 1986). Quality schooling and stability of the teaching staff within districts positively impact student learning (Guin, 2004), whereas teacher mobility negatively impacts the education of students resulting in inadequate school performance (Ingersoll, 2003). These findings demonstrate the imperative nature of reducing teacher attrition by satisfying teacher needs through the implementation of a multi-faceted induction program that will meet the diverse needs of the school or district's teacher community.

## Conclusion

The high turnover rate of teachers in their first years of teaching is an indicator that the field of education is not adequately supporting high-quality teaching especially for the newest members. The lack of adequate support leads to teacher dissatisfaction, a high rate of teacher turnover, and a revolving door effect in our nation's schools. Educational institutions need to focus on teacher satisfaction, induction, professional development, teacher preparation, attrition, and teacher retention. Each of these six areas

is linked to the others. An induction program that assesses each novice teacher's preparation for the task of teaching and the individual teacher's areas of need, can develop and implement an induction program that provides targeted professional development so that job satisfaction is experienced, which has the potential to result in a desire to remain and grow in the teaching profession and yielding lower attrition and higher retention rates.

It is vital to identify and provide supports for the needs of novice teachers so they are adequately prepared for the challenges of teaching and become satisfied teaching profession members. A differentiated induction program that provides supports tailored to individual teacher needs can further develop a novice teacher's knowledge and skills. Additionally, a multi-year induction program can provide induction activities that change as the individual teacher evolves in their instructional practices and individual professional needs (Bartlett & Johnson, 2010). As evidenced by this study, induction activities that have demonstrated positive impacts on novice teachers and should be part of an induction program include mentoring, a buddy system, orientations, dialogue sessions between colleagues, forming a network of teachers as learners, workshops, support by principals and administrators, and a system-wide commitment to developing teachers. As teachers become more experienced, their knowledge and skills expand developing them into educators that are better equipped at meeting the educational needs of the student population.

## Chapter 3

## Methodology

The purpose of the mixed methods pilot study, which used qualitative interview data and qualitative survey data, was to investigate the impact of providing a multi-faceted set of induction activities tailored to the individual teacher's needs of new preschool to 12th grade teachers in their first four years of teaching. There were four research questions as the central focus of the pilot study. How can an individualized targeted multi-faceted induction program for teachers in the first to fourth year of teaching prepare individuals for the responsibilities of teaching? From the perspective of mentors, principals, and teachers in their first to fourth year of teaching, how have induction opportunities addressed identified areas of need? Which instructional areas does a differentiated multi-faceted induction program positively impact for teachers in their first to fourth year of teaching? To what extent has the multi-faceted induction program provided opportunities for mentoring, collaboration, professional development, and reflection? In order to gather and analyze data to answer the research questions, twenty-four novice teachers, five mentors, and five principals participated in interviews and the same twenty-four teachers participated in three different surveys.

### Rationale and Assumptions

The rationale for selecting a mixed methods approach in the study was due to a desire to gather perceptions from new teachers, mentors, and building administrators in an effort to gauge if teachers are being properly equipped to teach. The mixed methods approach provided insights into the quality and meaningfulness of provided induction opportunities. The study method was conducive to the environment already in existence

in the district, which fostered a community of learners where participants collaborated to gain a better understanding of topics of focus.

Interviews provided first-hand knowledge of the problem under study from the perspective of novice teachers, mentors, and building administrators. Interviews provide an avenue to explore participant experiences and opinions. Through the use of interviews, the researcher would have opportunities to seek further clarification of provided responses, as well.

The various surveys included in the study provided the researcher with data on participants' satisfaction levels with each existing induction activity and ascertain stress levels of participants. One survey was created based on interview data, which allowed participants the opportunity to rate suggested new induction activities.

In a mixed methods study, qualitative and quantitative data sets could be analyzed separately first and then compared to one another in an effort to analyze the impact of individualized induction activities and their impact individually and when combined. Furthermore, through the use of interviews, surveys, and participants from different roles and years of experience, triangulation of gathered data could be conducted and verified against one another to form a richer picture based on contributions from the varied individual participants.

The high attrition rates being experienced in the field of education and specifically in Centerville Public Schools are the result of a lack of providing adequate new teacher induction supports, which contribute to inadequate teacher preparation and job satisfaction. As the researcher, I assumed that teacher satisfaction levels were positively impacted through the providing of a multi-faceted induction approach. The

assumption was based on the belief that by providing induction activities tailored to individual needs, high satisfaction levels would be realized due to participants experiencing a positive impact on their knowledge, skills, and instructional practices. As participants experience satisfaction in their career choice, attrition rates would decrease. As a result of teachers being more likely to remain in the profession and improve their knowledge, skills, and instructional practices, improved student academic achievement would be realized.

## Strategy of Inquiry

A mixed methods design is best when the qualitative and quantitative data by itself is not adequate in understanding an identified problem (Creswell, 2014). Therefore, for this study, a convergent mixed methods research design had been selected. In a convergent mixed methods design, the databases are analyzed separately and then brought together using a side-by-side comparison (Creswell, 2014). The process involved collecting qualitative and quantitative data during the cycles of the research process and integrating the information in the interpretation of the overall results during the analysis stage, (Creswell, 2014). A mixed methods study uses qualitative data, which tend to be open-ended and does not have predetermined responses, along with quantitative data, which are from closed-ended responses derived from questionnaires or psychological instruments (Creswell, 2014). The open-ended responses were collected from participant interviews. The closed-ended responses came from multiple surveys of new teachers. The qualitative data analysis argues from a set of data to a general theme (Teddlie & Tashakkori, 2009). The qualitative data analysis involved aggregating the data into a smaller number of themes (Creswell, 2013). The analysis was based on

addressing the research questions. The qualitative and quantitative data were analyzed separately first, and then at the end of each cycle. Mixing of the results occurred by first conducting a side-by-side comparison of the qualitative and quantitative data sets. The comparison was followed by an interpretation step, which involved stepping back and taking their meaning in relationship to the research problem and then a presentation of the findings (Creswell & Plano Clark, 2011).

An approach modeled after action research was selected because of its systematic approach to investigating and finding effective solutions to a problem confronted in everyday life (Stringer, 2014). Action research is an appropriate method when the desire is to improve an individual or organization's performance, especially for teachers' seeking to improve teaching practices (Hien, 2009). Furthermore, such an approach conducted enquiry with people, rather than research on people (Altrichter, Kemmis, McTaggart, & Zuber-Skerritt, 2002). The cyclical, investigative, and collaborative approach enabled people to understand and address the identified phenomena through the designing of more effective solutions than those currently in use (Stringer, 2014). The research study focused on the impact of providing targeted multi-faceted induction activities for participating new teachers in the district with the objective of building a body of knowledge that enhanced instructional practices for teachers new to the profession within the school (Stringer, 2014).

The research study went through four stages per cycle: collect, reflect, plan, and act (Figure 2). During the study, the four-stage cycle process was experienced a total of three times. The data collected was analyzed using first cycle coding, Descriptive Coding, and second cycle coding, Pattern Coding (Saldana, 2013). In order to determine

the influence of the provided multi-faceted induction program, each four-stage cycle began with collecting information through interviews with participating new teachers, mentors, and principals and was followed by surveys and open group discussion meetings between new teachers and separate sessions with mentors. Following the collection stage, reflection occurred to determine the meaning of the outcomes from implemented practices. During the third stage, a plan of action was developed to bring about a desired change due the implementation of the developed study plan. The final stage of the cycle, action, was achieved through the implementation of the plan. The stages were repeated for each subsequent cycle within the study.

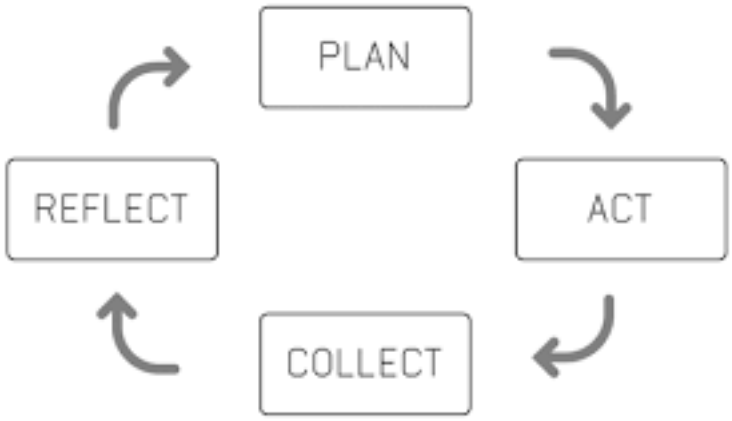



*Figure 2.* Action research cycles. Adapted from Stringer, E.T. (2014). *Action Research*. Thousand Oaks, CA: Sage.

**Stage 1: Collect**

New teacher participants within the study engaged in face-to-face standardized open-ended interviews and surveys in order to delve into experiences with induction activities and their ability to meet personal and professional needs using the provided

differentiated learning opportunities. A standardized open-ended interview consists of having fixed questions that are asked of all participants in a particular order, but affords participants to answer freely (Rossman & Rallis, 2012; Creswell & Plano Clark, 2011). The formal interview consists of a list of questions covered in a particular order, but where the interviewer, when he or she feels it is appropriate, are able to follow conversation trajectories that may stray from the initially created set of questions.

An initial set of surveys were distributed to participating new teachers in order to determine satisfaction levels pertaining to their general experience in the assigned position and with colleagues, administrative support, and stress. The Stress in General, Job Descriptive Index, and Job in General surveys are three surveys that are administered together at the same time. Together, the surveys provide the researcher information pertaining to participants' ratings of core elements of job satisfaction: people on the job, job in general, work, pay, opportunities for promotion, supervision, and stress at work.

**Stage 2: Reflect**

The data from the interviews and surveys formulated an understanding of participant experiences with the varied induction activities and resulting level of satisfaction. A review of the compiled data provided insight into associated shortcomings and benefits of the individual induction components and their impact on supporting new teachers in their teaching assignments.

**Stage 3: Plan**

New teacher participants were provided an overview of the induction opportunities and the objective of the program, which is to meet individual professional needs of new teachers and foster high levels of satisfaction with being prepared for their

career choice. Based on reflection of collected data sets, modifications to existing induction opportunities were made during each cycle of the study.

**Stage 4: Act**

Participants were provided detailed explanations of the induction components and oriented into how to access and use each opportunity. Teacher encountered access issues were addressed during this stage.

The study was considered complete after it was determined by participants that their needs of being prepared to teach were being addressed through the provided induction activities. Therefore, the study did not have a predetermined number of cycles that must be run in order for the study to be deemed complete, rather, the participant data sets were the gauge used to make the determination.

## Participants & Setting

### Sampling Method

The sampling was purposive sampling due to desiring a collection of participants in their first four years of teaching. The population sample was a mixture of 24 new elementary, middle, and high school teachers in their first through fourth year of teaching. The population was small, but expanded the years of experience and was representative of the district schools, which span preschool to twelfth grade. The mentors of eligible new teachers along with four building principals were included in the study, as well.

### Description of Setting

The study took place in Centerville Public Schools, a suburban public school system. The PreK-12 school district educates approximately 2,530 students. Centerville

High School is comprised of a student body blended from students from Centerville and a neighboring township. Centerville is racially diverse and of a lower socio-economic status, while the neighboring township is predominantly White with students coming from more affluent families. Centerville's PreK-8 student population is comprised of 40% low-income students, 4% English Language Learners, 17% students with disabilities, 36% Hispanic, 36% White, 16% Black, and 12% Asian. The high school student population is comprised of 15% low-income students, 2% English Language Learners, 12% students with disabilities, 15% Hispanic, 69% White, 8% Black, and 7% Asian.

## Data Collection

The study used a convergent mixed methods research design comprised of interview and survey data sets. In a convergent mixed methods design, the databases are analyzed separately and then brought together using a side-by-side comparison (Creswell, 2014). The study started with developing codes and themes from the qualitative interview data. All quantitative data was collected and analyzed. After the qualitative and quantitative data sets were analyzed separately, the researcher compared the qualitative findings to the quantitative results.

The data collection began with in-person one-on-one interviews with teacher participants. The rationale for using interviews with new teachers was due to their first-hand knowledge of the problem under study and exploration of the participants' experiences and opinions from a perspective other than the researchers (Rubin & Rubin, 2012). The interviews lasted 35-60 minutes each with the interview questions divided into subsections: preservice experiences, strengths and areas of growth, benefits of

induction activities, and overall induction experiences. Interviews with mentors and principals followed the teacher interviews. The participants had the opportunity to provide as much or little detail, as desired. As the researcher heard participant responses, he periodically summarized and reflected on what was being heard so as to assist in interpreting meaning (Miles et al., 2014). During each succeeding round of interviews with the participants, questions about preservice experiences were not included due to the previously provided information not changing as a result of currently provided induction activities. Furthermore, based on responses during the interview, the researcher asked additional questions that sought further clarification of provided responses. All interviews were recorded and transcribed. In order to ensure validity and reliability of the collected data, the transcripts were shared with each participant so he/she could review and confirm the transcriptions and provide clarifications of points made during the interview. Interviews were coded using first and second cycle coding (Saldana, 2013). After coding, themes were shared with participants along with data and interpretations to ensure validity of interpretation.

Following the interviews, each teacher participant completed a researcher-created Induction Benefit survey. The purpose of the survey was to gather quantitative data on participants' ratings of each induction activity the district provided to teachers in their first four years of employment in the district. The survey was administered digitally through an electronic form. The responses were automatically stored in a spreadsheet file. Survey respondents were given two weeks to provide responses.

The Induction Benefit survey was followed by The Job Descriptive Index including The Job in General Scale and Stress in General Scale Surveys. These surveys

maintained by Bowling Green University, although three separate surveys, are designed to be administered together. As a result, the surveys were administered as one digital survey with all input data automatically collected and populated into a spreadsheet.

At the conclusion of the study, the final data collection was through the Proposed Induction Activities survey, which was a researcher-created survey based on suggestions for additional induction activities provided by participants during interviews. The survey provided the opportunity to rate newly proposed induction activities for consideration as beneficial additions to the induction activities.

## Instruments

Instrumentation is the specific method selected for collecting data during a research study (Miles, Huberman, & Saldana, 2014). This research study used interviews and surveys, both publicly available and researcher-created, as the methods of research data collection.

### Interviews

The interviews consisted of 15 questions designed to delve into the participants' preparation for teaching in their own classroom, identification of strengths and areas of need within knowledge and skills, and benefits received from induction activities (Appendix D). These areas of focus were selected as a means to gather data along the preparation and experience continuum from participating novice teachers. This was achieved through the design of the interview questions by first ascertaining the foundational knowledge and experiences of each participating teacher prior to starting their career in teaching. The second and third focuses consisted of participants' personal identification of strengths and areas of growth and administrations' and mentors'

identified areas of strength or growth in regards to the participant. The fourth focus was on the induction activities, benefits and lack of benefits of experienced induction activities, and the awareness of the participant to the availability of each. The final focus of the interview questions was on the participant's overall induction experience and the degree to which it met needs of a teacher in their first to fourth year of teaching.

Furthermore, the questions were based on the belief that providing induction activities tailored to individual needs would instill in participants the knowledge and skills needed to be comfortable in the job, which would lead to job satisfaction. This was accomplished through the use of standardized open-ended interviews. Standardized open-ended interviews are comprised of pre-determined interview questions that are asked of all participants in a specific order (Teddlie & Tashakkori, 2009). The interviews provided the researcher with opportunities to ask interviewees for explanations of vague answers and opportunities for the participant being interviewed to seek clarification of unclear posed questions.

A pilot version of the standardized open-ended interview questions was provided to non-participating novice teachers, mentors, and administrators in order to receive feedback on included questions and to practice collecting, organizing, and analyzing the output data. A pilot study is a small-scale trial of the proposed procedures, questions, or surveys with a purpose of detecting any problems so that they can be remedied before the actual study is carried out, which adds to the validity and reliability of the instrument (Fraenkel, Wallen, & Hyun, 2015). In conjunction with the pilot interview questions, pilot participants were provided the study's research questions in order to gauge the ability of the interview questions to provide evidence in answering the research

questions. A pilot of the interview questions validated the effectiveness and value of the interview instrument.

As a result of provided feedback, two of the qualitative sub-research questions were combined into one. Additionally, the pilot provided the researcher with knowledge of what to expect during the interview process within the study and to adjust expected interview session times to 35-60 minutes.

**Surveys**

Surveys are usually self-administered questionnaires or interviews and are used to collect information from and about people to describe, compare, or explain their knowledge, feelings, values, and behavior (Fink, 2013). The study included surveys, which are available in the public domain: Stress in General and Job Descriptive Index including The Job in General Scale. The three are separate surveys, but are designed to be administered together at the same time. The researcher received written permission from Bowling Green University to use the surveys for this study. The Job Descriptive Index's family of scales is the result of research started more than 50 years ago initially by Cornell University and then continued at Bowling Green University with the designed intent of measuring people's work satisfaction, which could be used to predict job attrition. The survey has been updated three times since its creation: 1985, 1997, and 2008. The purpose of the survey of new teacher participants was to measure job satisfaction using the tool's five facets: work on present job, present pay, promotion opportunities, supervision, and coworkers. Each of these five facets has a direct connection to factors that researchers have identified as impacting attrition of new teachers (Ingersoll, 2001; Olsen & Anderson, 2007; Billingslevy, 2004; Cochran-Smith,

2004; Shen, 1997; Chapman & Green, 1986; Darling-Hammond et al., 2009; Ingersoll & Kralik, 2004; Ingersoll & Strong, 2011; Behrstock-Sherratt et al., 2014).

The Job Descriptive Index including The Job in General Scale and Stress in General Scale Surveys were voluntarily completed by participating teachers at the conclusion of the study. The collected data provided aspects of the job that were meeting the respondent's needs and based upon those needs not being met predicted turnover outcomes. The surveys were constructed using the "Yes", "No", and "Cannot Decide" scale and were disseminated to participants electronically. The rationale for using the survey as a data collection tool was the ease of administration, familiarity with surveys by respondents, and expected high rate of return of responses (Fink, 2013).

A researcher-created Induction Benefit survey was administered to participating new teachers. The survey's listed 16 induction activities were identified based on the induction activities provided by the districts to novice teachers. The survey required participants to rate the benefit level for each of the induction activities. The survey used a four-point scale: (1) Not Beneficial, (2) Somewhat Beneficial, (3) Beneficial, and (4) Very Beneficial. The survey was provided digitally with all participant responses collected into a spreadsheet.

The Proposed Induction Activities survey was researcher-created and developed as a result of suggestions provided by participants during interviews identifying potential additional induction activities to be added to the program. The survey listed 18 proposed induction activities and required participants to rate the benefit level of each induction activity on a four-point scale: (1) Not Beneficial, (2) Somewhat Beneficial, (3) Beneficial, and (4) Very Beneficial.

## Data Analysis

The data analysis section will focus on two areas: data management and analysis strategies. Data management will identify the data collected and the process used to share and store the collected data. The analysis strategies section will describe how the interview data went through first and second cycle coding. Additionally, the section will focus on the survey data and the averaging of data sets and regression analysis conducted to estimate the relationships among the variables.

### Data Management

The data elements from the research included interview recordings and transcripts, survey data, Centerville attrition data, anecdotal notes, and records of the data collection process used. The surveys were anonymous and did not contain identifying information other than demographic information pertaining to building assignment and years within the district. The interview transcripts contained the interviewee's assigned non-identifying number and possibly names of staff members, professional development workshop presenters, mentors, or administrators if brought forth by the interviewee during the interview.

All interview data was shared with the interviewees to ensure the data collection was valid, precise, and honest. All data was stored securely in a locked safe in which the researcher was the only individual with a key in an effort to keep the records safe from tampering or falsification by others, but accessible so the researcher could make changes, additions, and share with participants to ensure accuracy, as needed. Any errors were marked, but not erased.

**Analysis Strategies**

The first cycle coding method selected was Descriptive Coding (Saldana, 2013). In descriptive coding, the researcher assigns labels to data to summarize the basic topic of a passage in a word or short phrase, which provides categories that can be indexed and categorized. The rationale for using this coding method was to capture the topic of each of the passages making it easier to conduct later comparisons between elements within and across interviews. Descriptive Coding enabled the researcher to remain more objective by making the interview content more concrete. The chosen coding method enabled the researcher to break the content down to more tangible elements.

The second cycle coding method selected was Pattern Coding (Saldana, 2013). In pattern coding, the researcher identifies similarly coded data. The data is organized into sets, themes, or constructs and assigns meaning to the each selected set. The rationale for using this coding method was to identify emergent major themes based upon the multitude of codes from the first cycle coding. This was important in improving the focus of the data on the posed research questions. Since the individuals being interviewed hold different positions within the school, this method enabled the researcher to ascertain patterns between each of those interviewed.

The survey data from the Job Descriptive Index including the Job in General Scale and the Stress in General Scale were created in a computer syntax file that works with the Statistical Package for the Social Sciences (SPSS) predictive analytic software program through a service offered by Bowling Green State University. The data was re-coded, a report for respondents was generated, and summary reports were produced describing the provided sample.

The Induction Benefits and Proposed Induction Activities surveys each used a one to four-point scale rating of the benefit received or expected to be received from each induction activity. For the Inductions Benefits survey, the respondents' ratings were averaged for each induction activity. The collected data for each induction activity was used in conjunction with the JDI/JIG data for regression analysis

For the Proposed Induction Activities survey, the respondents' ratings were averaged for each proposed induction activity and the activities were ordered from the activity deemed the most beneficial to the least beneficial.

## Trustworthiness & Validity

The researcher checked for accuracy and validity in the study through the use of specific procedures and through the use of a consistent research approach. The validity strategies that were utilized involved triangulation of data from multiple participants before identifying themes. Once major findings were determined, the themes were brought back to participants to determine if the participants felt the identified themes were accurate. When conveying findings, rich, thick descriptions were developed so that the results were realistic and richer (Creswell, 2014).

During the participant selection process, the researcher ensured there were participants representative of elementary, middle, and high school and spanned one through four years in experience. Although this was not experienced during the study, there was concern that participants could have dropped out of the study at any time and led to a participant group that was not representative of the entire Preschool to 12$^{th}$ grade continuum. In an effort to improve internal validity, eight new teachers from each

building of varying experience levels were selected for the study. All participants remained for the duration of the study.

Reliability was achieved by creating an audit trail, coding and recoding, and peer examination. The audit trail started with a detailed recording of used methods and procedures so that other researchers desiring to replicate the process would be able to do so. The audit trail entailed storage of all recordings, transcriptions, surveys, and draft interpretations in a location that could be accessed by external reviewers with permission of the researcher. During the interpretation phase of the study, interpretations were shared with family, friends, colleagues, and outside readers in an effort to determine the honesty of interpretations (Krathwohl & Smith, 2005).

Although bias can enter the research design process due to the researcher and/or participants, the researcher was cognizant of potential preconceptions about the subject. The researcher fully informed participants of the purpose of the study, any benefits or potential risks participants may experience, and stressed the importance of full participation in the study.

This was a research study with the focus of providing a solution to a local problem. Therefore, external validity, or generalizability, was not the primary goal of the research. However, participants were selected from elementary, middle, and high school and varied in years of employment with the district from one to four years so that if participants dropped out of the study, representation of the different participant groups would still remain and generalizations to the larger education field could be made.

## Role of the Researcher

The researcher's existing administrative position in the district made the data collection process less complex due to knowledge of the district policies and procedures and an understanding of teacher and administrative time availability that was able to be devoted to participation in the study. Due to the nature of the researcher's position within the district and the researcher's role in the district's implemented mentoring and induction process, his involvement in the study of new teacher satisfaction was reasonable and was readily accepted by participants.

In order to ensure participants did not feel coerced to participate in the study, the researcher implemented a multi-step information and review process. The participants were informed of the study through an informational e-mail. One-on-one meetings with the recipients that expressed an interest in being involved were arranged. In an effort to overcome any sense of coercion, the teacher Association grievance chairs were invited to be part of the in-person participant-researcher meetings. The details of the study were reviewed and all consent forms were provided during the meetings. A follow-up in-person meeting was held with each participant that completed the consent forms to reiterate that involvement would not positively or negatively affect their position with the district and would not influence the researcher in any way. Furthermore, the researcher reiterated the right of the participants to leave the study at any time without needing to provide a reason.

## Ethical Considerations

The researcher followed all IRB mandates of Rowan University and Centerville Public Schools. Study participants were not required to join the action research study.

Rather, participation was on a voluntary basis. The participants electing to be involved in the study were provided informed consent with the ability to leave the study at any time without needing to provide a reason. Participants under the age of 18 were not included or permitted to be part of the study.

**Limitations**

Since the study did not include new teachers from every grade level and subject area at each of the four years of experience, the findings may be limited and will not be able to be applicable to all grade and experience levels. However, the participant selection was representative of the continuum of the preschool to 12th grade teachers and four-year span of experiences.

Impact limitation is when a study has a strong design, collection, and analysis of statistics, but may be impacted by regional factors, being too population specific, or being only helpful in adding to findings. Therefore, the study may suffer from impact limitations, since new teacher induction opportunities and needs vary from district to district and are affected by district location, socio-economic environment, and available resources. For example, a district that does not has a one-to-one technology environment will not be able to provide the same technology enhanced induction resources that a district with a one-to-one device structure and associated training. However, for districts similar to Centerville Public Schools, the findings are applicable and the procedures used for the study would be able to be duplicated in another school environment to determine the impact of results specific to that location.

## Conclusions

The convergent mixed methods research study detailed in this dissertation was focused on the issue of preparing new teachers in their first to fourth year of employment with the Centerville Public School District by providing an induction program using differentiated multi-faceted induction activities. When reviewing the literature pertaining to attrition rates of new teachers across the nation, the current 30% attrition rate is of serious concern. Completed studies have identified personal and professional satisfaction levels of new teachers as being a key reason why teachers decide to remain in their current position and profession. Furthermore, a review of the literature reveals that induction programs implemented in districts have a powerful impact on teacher personal and professional preparation and satisfaction. Examinations of induction approaches being used by schools indicate that the number of offered induction components vary from building to building and district to district, but mentoring, the most significant contributor to induction, is present in most districts due to state policy requirements albeit with varying levels of mentor preparation training and expectations. The most significant positive impact on new teacher satisfaction has been found when multiple components are part of a school or district's induction program (Smith & Ingersoll, 2004).

## Chapter 4

## Findings

This chapter presents the findings of the study by beginning with a brief review of the purpose of the study and the research questions to be answered. The chapter provides the data that was triangulated to more clearly support answers to the research questions. First, the setting of the study and a description of the participants will be reviewed. Secondly, the data collection process will be detailed. Next, the analysis of all qualitative and quantitative collected data will be presented along with a statement as to how the research questions were answered. Finally, evidence of trustworthiness will be included followed by a summary of the answers to each research question.

Across the nation, teacher retention has been an area of concern for decades (Ingersoll & Kralik, 2004). Centerville Public School District has experienced attrition of teachers in their first through fourth year of teaching at rates higher than the 30% found in recent studies by Gray and Taie (2015) and Marshall et al. (2013). The existing system of supporting teachers that are new to the profession with only mentoring is not achieving the desired outcome of producing skilled teachers that remain in the profession.

So, in an effort to address teacher retention, Centerville Public School District has developed and implemented a multi-faceted individualized set of induction activities, which were significantly more extensive than the traditional single induction support of mentoring provided to new teachers in other districts. The purpose of the mixed methods research study was to determine if the induction program prepared and supported novice preschool to 12$^{th}$ grade teachers for the task of teaching.

This study explored the relationship between the use of differentiated multi-faceted induction activities and their impact on new teacher instructional practices and job satisfaction. The mixed methods research study was guided by the main research question, "How can an individualized targeted multi-faceted induction program for teachers in the first to fourth year of teaching prepare individuals for the responsibilities of teaching?" In addition, the study sought to answer one qualitative and two quantitative sub-research questions: (1) From the perspective of mentors and principals and teachers in their first to fourth year of teaching, how have induction opportunities addressed identified areas of need? (2) Which instructional areas does a differentiated multi-faceted induction program positively impact for teachers in their first to fourth year of teaching? (3) To what extent has the multi-faceted induction program provided opportunities for mentoring, collaboration, professional development, and reflection?

**Participant Sample and Setting**

Centerville Public Schools is located in a racially diverse suburb with residents of low to moderate income. Centerville is a 2.3 square mile town populated by 12,000 people. The demographics of the elementary and middle schools are 35% White, 36% Hispanic, 11% Black, 12% Asian, 5% two or more races, and 1% other. A more affluent and predominantly White neighboring town has a high school send-receive relationship with Centerville. As a result, the high school demographics are 66.5% White, 17% Hispanic, 8% Asian, 7.5% Black, 1% two or more races and other. The district serves approximately 2,400 students in three buildings: elementary, middle, and high school.

The district staff is comprised of 63% tenured and 37% non-tenured. Of the non-tenured, 31% are in year one, 25% are in year two, 29% are in year three, and 15% are in

year four. A review of the placement of non-tenured teachers in the district reveals 39% are from the elementary school, 21% from the middle school, and 40% from the high school. The gender composition of non-tenured teachers is 32% male and 68% female.

Study participants were recruited from the district's non-tenured pool of teachers. The recruitment process included providing all potential study participants with the criteria to be considered for inclusion in the study. Furthermore, potential participants were provided a description of the study, ability to leave the study at any time without question or retribution, and expected time requirements for those eligible and selected to be part of the study. All potentially eligible teachers were initially provided the information via a survey where each could reply if they were interested in potentially being a participant or not. A one-on-one conference was arranged and provided to each of the eligible teachers that expressed interest. At the conference, each was provided the consent forms along with associated explanations. Eligible participants were allotted a two-week window to return signed forms if they remained interested in participating in the study. The same process was implemented for potential mentor and administrator participants. The requirement for mentors and administrators were that they were tenured and mentored or supervised a teacher in their first four years with the district.

The study included 24 teacher participants in their first four years within the Centerville Public School District. Of the 24 teachers, there were six first year teachers, six second year teachers, six third year teachers, and six fourth year teachers. The participating teachers spanned grades preschool to twelfth grade. There were eight participating elementary school teachers, seven middle school teachers, seven high school teachers, and two teachers had districtwide assignments, which required them to teach in

all three buildings. Of the 24 participating teachers in the study, four were male and 20 were female teachers in their first four years of teaching. Two females and three male administrators participated in the study, as well as, four females and one male mentor.

Confidentiality of participant selection was achieved through recruitment via e-mail. Expressed interest was collected in a spreadsheet that was only accessible by the researcher. After a participant agreed to be a part of the study, they were provided consent forms, which after being signed were locked in a safe that only the researcher had access. Each participant was assigned a six-digit number in place of their name. The name and six-digit number assignment was recorded and locked in the safe that only the researcher had access and was a number that only the researcher knew. All subsequent documents were only identified by use of the six-digit number. During interviews, when names of staff members were used by participants, a replacement pseudonym was used instead in order to protect the privacy of all involved and named during the study. When conducting interviews, the location was at the discretion of the participant with guidance by the researcher to ensure the most private location possible so as to not be disturbed or identified as being part of the study.

The study took place in Centerville Public Schools and included teachers in their first four years of teaching, mentors, and administrators as participants. Each teacher, mentor, and administrator participant engaged in interviews as scheduled and in a location of their choice within their school building. All surveys were administered digitally created through a Google Form and distributed via e-mail. All participants who initially agreed to be part of the study were retained throughout the study until its completion.

During one teacher interview, a fire alarm interrupted the interview session, but resumed ten minutes later without further interruptions. The first digital survey of teachers required a follow up e-mail reminder in order to encourage all participants to respond. As a result, all participants responded. Additional surveys did not require reminders since all participants responded in a timely manner. The participants responded to all posed survey questions in every survey administered. Participants were not identified as having been influenced by any internal or external factors in their participation or responses.

## Data Collection

The researcher collected data from participant interviews, job satisfaction surveys, induction benefit survey, and proposed induction activities survey. The data was used to gain insights into the effects of providing teachers in their first to fourth year of teaching in Centerville Public Schools with a multi-faceted induction experience tailored to individual needs. In order to understand the impact of a multi-faceted induction program on teacher preparation, practice, knowledge, skills, and satisfaction, a combination of interviews and surveys were utilized for the study. The qualitative and quantitative data were compared to each other in an effort to analyze the impact of individual induction activities, the impact of induction activities when combined, and to triangulate the findings.

### Interviews

The created interview questions were based on the study's research questions. Structured open-ended interview questions yield qualitative data obtained from questions that do not contain predetermined categories or scales (Creswell & Plano Clark, 2011).

The structured open-ended interview questions can uncover data on the personal experiences of participants. The designed structure of the interview questions first ascertained the foundational knowledge and experiences of each participating teacher prior to starting their career in teaching. The second and third parts of the interview focused on participants' personal identification of strengths and areas of growth and administrations' and mentors' identified areas of strength or growth in regards to the participant. The fourth part of the interview focused on the induction activities, benefits and lack of benefits of experienced induction activities, and the awareness of the participant to the availability of each. The final part of the interview questions focused on the participant's overall induction experience and the degree to which it met needs of a teacher in their first to fourth year of teaching.

Each of the interview transcripts were created the week following the interview and shared with the participants as soon as each was transcribed. The transcripts were reviewed by the participant involved in the interview to check for accuracy of transcription and to allow each an opportunity to clarify points made, expand on responses, or alter responses. By conducting member checking, the interview transcripts accurately reflected the thoughts and feelings of the participant based on each posed question (Rossman & Rallis, 2012). The interview data went through first and second cycle coding with transcripts and post-coding themes shared with participants as soon as coding was completed to ensure accuracy. All data was stored in a locked safe to ensure that the information was only accessible by the researcher. The researcher did not encounter any unusual circumstances during the data collection process.

**Surveys**

In an effort to measure job satisfaction, for completeness, the Job Descriptive Index (JDI) and Job in General (JIG) surveys were distributed electronically as one survey. The JDI measures job satisfaction using five facets: work on present job, present pay, opportunities for promotion, supervision, and coworkers. Each facet contains either nine or eighteen items. The five facets are good at predicting outcomes related to turnover or intentions to quit. The JDI, an eighteen item survey, has been shown to predict intentions to quit a job.

The Induction Benefits survey was distributed, which required the respondents to rate each induction activity on a four point Likert scale: (1) Not Beneficial, (2) Somewhat Beneficial, (3) Beneficial, and (4) Very Beneficial. The survey had the respondents rate sixteen induction activities: Welcome orientation, buddy teacher, mentor, observation of colleagues, observations by colleagues, in-district professional development, out-of-district professional development, professional learning communities, observations/evaluations/walkthroughs, central administration non-tenured meetings, principal non-tenured meetings, best practices video archive, non-tenured teacher collaboration, non-tenured teacher/mentor collaboration, principal support, and administrative support.

As a result of information gathered from participant interviews throughout the study, a Proposed Induction Activities survey was created. The survey questions were derived from extracted study participants' interview data. Interviewed participants suggested new induction activities that could enhance the program's currently provided set of induction activities. The survey was distributed at the end of the data collection

portion of the study and asked respondents to rate newly suggested induction activities on a four point Likert scale: (1) Not Beneficial, (2) Somewhat Beneficial, (3) Beneficial, and (4) Very Beneficial.

### Collection Process

Every interview was conducted in person with the researcher collecting written notes and audio recordings during the interviews. Each audio recording was transcribed and typed into a Microsoft Word document. The surveys were distributed electronically and the responses were digitally collected into a spreadsheet for each survey. All participant and/or identifiable district names were replaced with pseudonyms so as to protect the confidentiality and privacy of district personnel.

The teacher interviews were conducted three times with each teacher: Week of January 2, 2017, week of February 6, 2017, and week of March 6, 2017. The mentor and administrator interviews were conducted the week of February 13, 2017. The Job Descriptive Index (JDI) including The Job in General (JIG) Scale Survey and Stress in General Survey were administered the week of March 6, 2017. The Induction Benefits survey was administered the week of March 6, 2017. The Proposed Induction Activities survey was administered the week of April 3, 2017.

## Data Analysis

### Interview Coding

The interviews were structured by being divided into several different areas of focus: pre-service preparation, self-identified and administrator-identified areas of strengths and areas needing to grow, induction activities, and overall induction perceptions. As each interview was completed and transcribed, the interviews of

teachers, mentor, and administrators went through first and second cycle coding. Codes were identified using a code list detailed as shown in Table 1 with code occurrence counts listed in Table 3. Through the coding process, common themes were determined based on data reduction that occurred through the cycles. The themes included teaching preparation/growth, support, impacts, and reflection/self-assessment. The codes for each theme and excerpts from transcripts are included as shown in Table 2.

Table 1

*Code List*

| **Codes** | **Synonyms/other qualifying terms** |
|---|---|
| Areas | Parts, ranges, capacity, region, location, place |
| Collaboration | Team, cooperation, alliance, teamwork, partnership, association, relationship |
| Development | Increase, improvement, maturity, training, growth, expansion, progress, advance, change |
| Impact | Influence, connect, impression, effect, control, sway, bearing |
| Opportunity | Chances, occasions, opening, breaks, prospect |
| Needs | Wants, requirements, desires, requests, wishes, necessities, essentials, prerequisites |
| Preparation | Training, planning, in advance, introduction |
| Reflection | Consideration, thought, thinking, contemplations, deliberation |
| Responsibilities | Duty, concern, charge, accountable, obligation |
| Support | Mentor, guide, provide, assist, care, encourage, help, advise, counsel, teach, tutor, buddy |

Table 2

*Themes*

| **Themes** | **Code Occurrences** | **Transcript Excerpts** | **Codes** |
|---|---|---|---|
| Teaching Preparation / Growth | 94 | "I think life experiences prepared me. I've always worked with kids. So, that in conjunction with making connections throughout the graduate program."<br><br>"I went in to observe a colleague and how they use math menus because I wanted to be better prepared for my lessons and engage the kids more. By doing so, I was able to see how other teachers implemented the math menus. I have already seen how I have grown in this area." | Training, introduction, development, progress, advance, improvement, expansion, change, increase, experiences, classes, workshops |
| Support | 277 | "I feel like we have such support and we do have so much expected of us in a good way. We feel like we are being held accountable to high expectations, but we are supported along the way. The environment here is like no other due to support provided by staff and administration. Centerville is pretty unique in a good way."<br><br>"The Collaborative Professional Learning Academy is a great support for teachers in so many different areas. I have taught one on co-teaching, which was great because I was able to help my colleagues with knowledge I had in that area. I have attended so many different ones on technology. That was important because we went 1-to-1 with Chromebooks at the high school and we had a better idea of how to use technology as a result of the sessions." | Mentor, guide, provide, assist, care, encourage, help, advise, counsel, teach, tutor, buddy, team, cooperation, alliance, teamwork, partnership, collaboration, association, relationship, chances, occasions, opening, breaks, prospect |

Table 2 (continued)

| Themes | Code Occurrences | Transcript Excerpts | Codes |
|---|---|---|---|
| Impact | 74 | "I have grown as a teacher. I have observed other teachers. It was nice to see that what I was doing in my classroom was the same thing that was being taught there. So, that gave me self-confidence and made me more comfortable to kind of explore different avenues that were being offered instead of taking things personally. I looked at it more as a way to grow myself professionally that as punitive."<br><br>"I have improved so much in technology. I have learned how to use Nearpod, make my teacher website more useful to the students, and now do assessments and provide students with resources right through Google Classroom. This is coming from a teacher that lacked tech skills. As a result, my classroom and the learning going on there is so much more engaging for the students." | Influence, connect, impression, effect, control, sway, bearing, duty, concern, charge, accountable, obligation |
| Reflection / Self-Assessment | 54 | "I feel like I have a pretty good control and management of my class. I feel like I am able to develop good relationships with my students and their families. I think I work well with colleagues, which is helpful for planning purposes and trying to figure out where to go next or what to do with a specific case."<br><br>"I have a strength in classroom management, being able to deal with the requirements of different special needs that I have in my different classes throughout the day, and making sure everything is running smoothly." | Want, requirement, desire, request, wish, necessity, essential, prerequisite, part, range, capacity, region, location, place, consideration, thought, thinking, contemplation, deliberate, unique |

**Themes**

Several themes emerged from teacher, mentor, and administrator interviews pertaining to the multi-faceted induction activities offered by Centerville Public Schools: Teacher preparation/growth, support, impact, and reflection/self-assessment.

**Teaching preparation/growth.** The first theme that emerged from the induction program interviews centered on teacher preparation and growth. In some ways, teacher preparation and growth are inextricably linked to the support that is provided. In this theme, teacher preparation involved the uncertainty experienced when entering the classroom for the first time on their own, undertaking a new challenge, or encountering a new situation.

Many teachers in the study started their teacher training through their involvement with children growing up. "I use to play school and I was always the teacher."

A different teacher shared, "Before I started college, I worked in a summer camp for a couple of years. I learned about kids firsthand through that experience. I try to relate what happens in the classroom to my summer camp counselor days."

Although a teaching foundational knowledge base is acquired in college, much of what teachers learn in how to be a teacher is learned on the job. The preparation is enhanced through their student teaching experience and then each subsequent years of teaching in their own classroom. Teacher preservice training involves coursework that lays the foundational knowledge that assists in building the understanding about teaching and learning. It begins using a theoretical approach and slowly integrates connections to real-life experiences. Students begin their foray into teaching by conducting observations

in a variety of classrooms. However, depending on the college program one attends, the experiences can vary greatly.

A second year teacher explained, "I observed in a rural school, urban school, and suburban school. My college wanted to give us a well-rounded experience."

Another teacher recalled, "I observed in the same class where I was going to be assigned to student teach. The university wanted us to get to know the teacher and students before we started the formal student teaching experience. In some ways it was a great idea, but in other ways I think it would have benefitted me to be exposed to other types of schools."

A different teacher shared, "I went to XYZ and they were very big on getting into the field from day one. So freshman year we went to an urban education setting and we saw how things work through urban education. We were there for one day a week and kind of shadowed. In my sophomore year we went to a different setting and then we got more involved and we did one lesson."

A teacher recalled, "I remember I was standing in front of the classroom and the students were all talking when they were supposed to be silent. I wasn't sure what to do or how to get their attention. Somehow, my silence was noticed by a few students, who then stopped talking. Like a ripple effect, one by one the students became silent. I had just learned my first strategy for classroom management."

The multi-faceted induction activities provided through Centerville's induction program focused on areas where teachers needed to grow after completing their student teaching experience and being hired as a teacher for the district. Through the varied meetings with school personnel, open discussions, new initiatives, observations,

evaluations, and walkthroughs, each teacher's individual needs became apparent. The teachers themselves were aware of some of their own needs, but more often, areas of growth were identified by an administrator, at least in the initial years of teaching.

A fourth year teacher explained, "I didn't know what I didn't know. I was new to all of this teaching. It was so helpful for someone else to come in and point out the difficulties I was experiencing and then suggest supports to help me become a better teacher. Initially, I just thought this was how a classroom was. It wasn't what I remembered from my days in school. Now I know better."

Classroom management was the most common area identified as an area of needed growth. Teachers in their second, third, and fourth years felt they became better at classroom management after the first year and in some cases after the second year.

A principal explained, "In order for the new teachers to grow, the proper supports need to be put in place. As the principal, I often first look at how well a new teacher is managing the classroom. It is the area we usually start to support."

Instructional practices are another area identified as an area of growth. As the district adopts new curriculum or makes new resources available, teachers need to become knowledgeable on how to use the tools in appropriate ways. Professional development and one-on-one or small group training sessions are provided.

A third year teacher said, "When I started in the district, a new math program had been adopted the year before. Since all of the training had already been provided the previous year, instead of learning on my own, the principal worked with all of the new teachers and walked us through how to use the resources and modeled each component of

the lesson. I felt much more prepared to teach even though I did still struggle along the way at least initially."

**Support.** The second theme identified and having the highest number of occurring codes was "support". The multi-faceted approach included involvement from mentors, teaching colleagues, coaches, principals, and building and central administrators. The inclusion of many different individuals only added to the level of support perceived by teachers new to the district. If one member was not available to provide personnel support, another was willing and able to be involved.

The supports were perceived to fill in gaps present from preservice teacher training. As a result of first year teachers having varied preservice experiences, an induction program only designed to address specific gaps would be beneficial for some new teachers, but not for others. A differentiated approach with various supports is better able to meet the diverse needs, which are unknown until a new teacher joins the district and begins their teaching career.

Although pre-service teaching experiences are beyond the direct control of Centerville Public School District, much can be learned about supports from the identified areas of benefit experienced by the novice teachers. The information can be used to re-design induction activities to imitate pre-service experiences that were deemed successful or to address areas that were identified as lacking development.

Study participants reported that hands-on learning experiences were more beneficial than just reading about them in books. The central administrator non-tenured meetings for second year staff had been designed in a manner that was more book-based learning rather than centered around hands-on experiences.

Participants detailed how it was beneficial to learn how to clearly identify differentiation and high-level questions in lesson plans. Also, including time for providing individual and group assistance was identified as helpful, as well. By doing so, teachers felt equipped for the task of teaching. Supports in these areas were woven into the daily support provided at the building level and done so on a case-by-case basis, thus, differentiated to individual needs.

The student teaching seminar meetings to discuss and address experiences while student teaching are similar to existing approaches used by principals during their non-tenured meetings, mentor-mentee meetings, non-tenured discussion group meetings, and central administrator non-tenured meetings. The personnel that provided these experiences leveraged the knowledge about the benefits perceived from such experiences and purposefully included them.

Teachers self-identified areas of strengths and areas needing growth. These identified areas were used to ensure the induction activities leveraged teacher strengths and addressed areas identified as areas where growth was needed. A common area of concern was classroom management, which was attributed to a lack of training and experience during the pre-service phase. Without the foundational knowledge and skill in classroom management, a teacher's instruction and student understanding will suffer as a result. Principals involved in the study raised this as a common concern during the interviews.

One principal reported, "Many of the new teachers lack classroom experience. They are more concerned about going through the lesson. They do not understand that classroom management is one of the most important things to establish right from the

start of school. If they lack classroom management, the rest of the year is an uphill battle. Teachers that struggle in this area are usually the ones that are non-renewed because their students are not learning as best as they can due to the classroom environment and lack of routines."

Interviews revealed a multitude of supports in the form of resources provided to teachers participating in the induction program, as well. Many participants explained how coaches, principals, and other administrators would provide links to information and websites that could be used to improve their knowledge and instruction. Additionally, technology was an area of great support and included devices, applications, websites, programs, 3D printers, speech-to-text software, and classroom management subscriptions, such as, Class Dojo. It was noted that with each provided resource, appropriate training was provided, as well.

A participating teacher expressed, "Our principal stressed how he felt using Google Classroom would benefit the students and make what we do as teachers an easier process. He did not just tell us. In our first year principal meeting, we were walked through the process of setting up our own Google Classroom and populating it with our students. We experienced sending documents to the students. It was so helpful to have the administrator hold our hand through the process so we felt comfortable using this new tool."

An identified important support was in the form of discussions, too. Through the mentor-mentee collaborations, non-tenured discussions, principal meetings, and central administrator meetings, participants were encouraged to share their successes and areas

of struggle. The cohort experience provided a bond between the members with each individual serving as a resource for the others in the group.

One teacher shared, "Most people in the district are very approachable. It doesn't matter if they are a teacher, instructional aide, or administrator. Each of them are open to listening to your needs and brainstorming solutions with you. They are all much more experienced than I am, and I have found this support network to be priceless."

For Centerville, interview data revealed that teachers felt inadequate and unprepared in meeting the needs of English Language Learners (ELL) and students with behavioral needs. Since Centerville is experiencing an increase in ELL students and students with behavioral needs, an inclusion of training and resources in these areas within the induction experience is warranted since such training is not part of most pre-service programs and is not currently purposefully part of the existing induction program.

**Impact.** The third theme, impact, was mentioned in all of the interview transcripts. Teachers expressed the impact the induction program had on their knowledge and skills in teaching and learning. They expressed their belief that they have evolved as a teacher.

A third year teacher shared, "I was shaky as a new first year teacher. Now that I am in my third year, I have a lot more confidence and knowledge about how to reach students and make learning a fun experience. I am not an expert teacher, but I have become an expert in a few areas. I am a believer in brain-based learning. I was asked to do some workshops for other teachers on the topic. Now, teachers are coming to see my class in action and call or e-mail me with questions about how to do certain things."

A second year teacher stated, "When I first started, I was very weak in using technology in the classroom. This district has a lot of technology and they expect you to use it meaningfully, not just use it. The best part is that they showed me. When an administrator, mentor, or colleague found something they thought I could use in my class, they showed me how to get it and use it. I never felt alone. As a result, I have gotten better."

The impact is not always one the teacher feels for themselves. The impact is also experienced by students. "My students have benefitted from the supports I have been provided since I have been here. My teaching is so much stronger than it was a few years ago. I feel bad for the students I had my first year because the newest have a better teacher as a result of all the people that have helped me along the way. My instruction is so much more focused and engaging."

When participating teachers evaluate the induction program, they feel that the program supports and challenges them in many different ways so that they are the best teacher they can be. "I think in this system they want to provide you with every single thing possible to make you a successful teacher. So, I would say it's definitely more intense than other districts. The level of expectation is higher, but I think when the bar is raised that high, you rise to the occasion. For other districts, they kind of just throw you in, but I don't want to talk badly about other places."

Another teacher said, "The impact of the induction activities was a feeling of being very supported. You always felt like you knew the administration, which I think is really helpful. You always felt like there were people there to help you and care about

you and would be willing to give you anything you needed. At times it felt like a lot, like you were like, okay, I feel very supported and now I need time, but it's really unique."

When comparing the induction program provided at Centerville to those offered at neighboring school districts, most other districts only provide mentoring. The interviews with study participants revealed the understanding of experiences novice teachers in other districts received as compared to what was provided in Centerville.

"When I talk to my friends who are teachers and explain all of the support I get here, they are amazed. Some have a mentor assigned that they have never met with. I think they are jealous of what we get here. They asked me if it gets to be too much, but I explained that I never feel on my own. Someone is always there to support me and it is a great feeling. They have commented on how confident I am as a teacher and when I talk about teaching."

Additionally, most other induction programs that participants were aware of lasted usually a year and in some rare cases, two years. As previously stated, Centerville's induction program continues for four years. In other districts during the first year, usually only the teacher, mentor, and principal were formally involved in the induction process especially in completing the required state evaluation forms. Centerville involves mentors, teaching colleagues, principals, and building and central administrators and annually seeks feedback from novice teachers regarding other personnel supports that would be beneficial in order for them to be successful.

**Reflection/self-assessment.** The fourth theme was reflection/self-assessment. As part of the first year administrative non-tenured meetings, teachers are provided a Swivl device, which permits one to record themselves. The device tracks and records their

movements and records their voice. Each teacher is strongly encouraged to record themselves and watch it by themselves as a form of self-reflection on their instruction. Most teachers take advantage of the suggestion.

A first year teacher explained, "I didn't want to record myself, mainly because I don't like the way I look and sound. I'm glad I did. I saw how I waited for such a short amount of time before calling on students and noticed I tended to stay on one side of the room more often than the other. I also appeared much more confident than I thought I did."

Novice teachers were able to submit a Swivl recording of a lesson in lieu of an announced observation, if desired. Many reported recording themselves multiple times before being satisfied with the lesson to be submitted. The rationale for permitting this approach for a formal observation was to permit teachers to be self-reflective in their practice so improvements are experienced, which is the purpose of formal observations. If a teacher continued to record themselves because they were not satisfied with how a lesson went, they were being reflective in their practice. The inclusion of this practice in the observation portion of the induction program encouraged teachers to be reflective practitioners.

The study participants felt the induction program demanded that they be reflective in their practice. As a component of the fourth year before tenure is granted, each fourth year teacher needs to create a tenure presentation. The task requires the teacher to reflect on their growth over the past four years with the district. Each teacher has to identify their strengths and areas of growth from when they first started in year one to how they have evolved as an educator by the end of year four. Many of the study participants

expressed stress over the tenure presentations.

A first year teacher shared, "I am only in year one, but I am already stressed that I will have to do the presentation. I want to meet with either fourth year or fifth year teachers and ask questions and have them show us what they created."

A fourth year teacher stated, "This is the year I do my presentation. I am really nervous, but feel I am really prepared for it. I have been supported throughout the process of brainstorming what to include and how to make the presentation. The reflection was really beneficial. If I hadn't done this project, I probably wouldn't have looked back at where I started and what kind of teacher I am today. I have really grown and I am really proud of myself."

When teachers were first hired by the district, during their welcome orientation, they wrote a letter to themselves detailing what kind of teacher they think they are currently and what type of teacher they wanted to become. Additionally, they included what they wanted to accomplish and in what ways would they positively impact the students. After the fourth year tenure presentation, the letters are returned to the teachers. The letters serve as an additional form of reflection for the teachers, which was used to readjust their compass and chart the next part of their career.

Based on the interviews, participating teachers, mentors, and administrators commented that the provided induction activities were identified as beneficial in assisting developing the teacher participants into stronger teachers and in some cases experts in specific areas of focus and appeared to desire remaining in teaching. This position is supported by Johnson and Birkeland (2003) who found that as professional needs of teachers are met, a high level of satisfaction in the profession and work environment is

experienced and will result in continuation of employment.

Table 3

*Code Occurrences*

| ***Codes*** | ***Code Occurrences*** |
|---|---|
| Areas | 54 |
| Collaboration | 277 |
| Development | 94 |
| Impact | 74 |
| Opportunity | 13 |
| Needs | 24 |
| Preparation | 22 |
| Reflection | 18 |
| Responsibilities | 9 |
| Support | 260 |

**Induction Activity Benefit Level Analysis**

The teacher participants rated each of the 16 induction activities on a four-point scale: (1) Not Beneficial, (2) Somewhat Beneficial, (3) Beneficial, and (4) Very Beneficial as shown in Table 4. All of the induction activities rated higher than (3) Beneficial except PLCs (2.59), observed by colleagues (2.65), administrator new teacher meetings (2.76), and principal new teacher meetings (2.88). The four that did not score above (3) Beneficial, rated between (2) Somewhat Beneficial and (3) Beneficial with all four yielding scores closer to the (3) Beneficial level.

Table 4

*Induction Activity Benefit Levels*

| Activity | Rating |
|---|---|
| Principal Support | 3.88 |
| Administrative Support | 3.65 |
| Collaborate with New Teachers | 3.53 |
| Out of District PD | 3.47 |
| Observe Colleagues | 3.35 |
| In-District PD | 3.35 |
| Welcome Orientation | 3.18 |
| Walkthroughs, Observations, & Evaluations | 3.18 |
| Collaboration with Mentors | 3.12 |
| Buddy Teacher | 3.12 |
| Video Archive of Best Practices | 3.12 |
| Mentor | 3.06 |
| Principal New Teacher Meetings | 2.88 |
| Administrator New Teacher Meetings | 2.76 |
| Observed by Colleagues | 2.65 |
| PLCs | 2.59 |

## Survey Regression Analysis

A regression analysis was conducted comparing the JDI/JIG survey results to each mentoring activity in order to determine mathematically if one variable was able to predict the other variable. The null hypothesis was that the induction activities do not affect job satisfaction. Furthermore, the compiled data can indicate which variable matters most and which matters least. For the regression analysis, the dependent variable was the JDI/JIG score and the independent variable was the score for the individual mentoring activities.

**Welcome orientation analysis.** The JDI/JIG to welcome orientation regression analysis comparison is significant due to the Significance F value of 0.005 being less than 0.05, so the null hypothesis is rejected as shown in Table 5. The Multiple R is 0.621,

which demonstrates a weak correlation. The R Square value of 0.386 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.347 eliminates the effect of unknown variables.

Survey participants provided an average rating of 3.18 on the four point Lexile rating, which is higher than the (3) Beneficial rating. Although teachers rated the welcome meeting as beneficial, the welcome meeting had limited impact on job satisfaction according to the JDI/JIG survey results, with the weak correlation supporting the finding.

Table 5

*JDI/JIG to Welcome Orientation Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.62133094 |
| R Square | 0.386052137 |
| Adjusted R Square | 0.347680395 |
| Standard Error | 15.93214779 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 2553.777778 | 2553.777778 | 10.06084482 | 0.005917064 |
| Residual | 22 | 4061.333333 | 253.8333333 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 205.3333333 | 17.70759226 | 11.59577939 | 3.37462E-09 | 167.7949147 | 242.871752 | 167.7949147 | 242.871752 |
| X Variable 1 | 17.33333333 | 5.46468161 | 3.171883482 | 0.005917064 | 5.74872583 | 28.91794084 | 5.74872583 | 28.91794084 |

**Buddy teacher analysis.** The JDI/JIG to buddy teacher regression analysis is significant due to the Significance F value of 0.001 being less than 0.05, so the null hypothesis is rejected as shown in Table 6. The Multiple R is 0.703, which demonstrates a relatively strong correlation. The R Square value of 0.494 indicates the value of the

Multiple R that did not happen by chance. The Adjusted R Square value of 0.462 eliminates the effect of unknown variables.

Survey participants provided an average rating of 3.12 on the four point Lexile rating, which is slightly higher than the Beneficial (3) rating. The beneficial rating for buddy teachers was consistent with the job satisfaction results, which supports the relatively strong correlation finding.

Table 6

*JDI/JIG to Buddy Teacher Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.703245086 |
| R Square | 0.494553651 |
| Adjusted R Square | 0.462963255 |
| Standard Error | 14.45593251 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3271.527355 | 3271.527355 | 15.65518961 | 0.001130517 |
| Residual | 22 | 3343.583756 | 208.9739848 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 209.3147208 | 13.30979096 | 15.72637177 | 3.75204E-11 | 181.0992244 | 237.5302172 | 181.0992244 | 237.5302172 |
| X Variable 1 | 17.2893401 | 4.369676152 | 3.956663949 | 0.001130517 | 8.026040471 | 26.55263973 | 8.026040471 | 26.55263973 |

**Mentor analysis.** The JDI/JGI to mentor regression analysis is significant due to the Significance F value of 0.00003 being less than 0.05, so the null hypothesis is rejected as shown in Table 7. The Multiple R is 0.816, which demonstrates a strong correlation. The R Square value of 0.666 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.645 eliminates the effect of unknown variables.

Survey participants provided an average rating of 3.06 on the four point Lexile rating, which is slightly higher than the (3) Beneficial rating. The beneficial rating for mentors was consistent with the job satisfaction results, which supports the strong correlation finding. Furthermore, the data reveals that mentoring was the second strongest correlation of all of the induction activities.

Table 7

*JDI/JIG to Mentor Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.816104381 |
| R Square | 0.666026361 |
| Adjusted R Square | 0.645153009 |
| Standard Error | 11.75072532 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 4405.838384 | 4405.838384 | 31.90797282 | 3.62762E-05 |
| Residual | 22 | 2209.272727 | 138.0795455 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 194.1818182 | 12.01481953 | 16.16185891 | 2.48361E-11 | 168.7115386 | 219.6520978 | 168.7115386 | 219.6520978 |
| X Variable 1 | 21.22727273 | 3.757894583 | 5.648714263 | 3.62762E-05 | 13.26089209 | 29.19365337 | 13.26089209 | 29.19365337 |

**Observation of colleague analysis.** The JDI/JIG to observation of colleague regression analysis is significant due to the Significance F value of 0.002 being less than 0.05, so the null hypothesis is rejected as shown in Table 8. The Multiple R is 0.658, which demonstrates a weak correlation. The R Square value of 0.434 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.398 eliminates the effect of unknown variables.

Participating new teachers surveyed had an average rating of 3.35 on the four point Lexile rating, which is notably higher than the (3) Beneficial rating. However, the high beneficial rating for observing colleagues was inconsistent with the job satisfaction result's weak correlation finding.

Table 8

*JDI/JIG to Observation of Colleague Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.658825164 |
| R Square | 0.434050597 |
| Adjusted R Square | 0.39867876 |
| Standard Error | 15.2966871 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 2871.292929 | 2871.292929 | 12.27107852 | 0.002944768 |
| Residual | 22 | 3743.818182 | 233.9886364 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 206.9090909 | 15.64047581 | 13.22907905 | 4.94825E-10 | 173.7527634 | 240.0654185 | 173.7527634 | 240.0654185 |
| X Variable 1 | 17.13636364 | 4.891896973 | 3.503009923 | 0.002944768 | 6.766005321 | 27.50672195 | 6.766005321 | 27.50672195 |

**Observed by colleague analysis.** The JDI/JIG to observed by colleague regression analysis is significant due to the Significance F value of 0.0002 being less than 0.05, so the null hypothesis is rejected as shown in Table 9. The Multiple R is 0.754, which demonstrates a relatively strong correlation. The R Square value of 0.569 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.542 eliminates the effect of unknown variables.

Survey participants provided an average rating of 2.65 on the four point Lexile rating, which is slightly lower than the (3) Beneficial rating. The observed by colleagues'

induction activity had an impact on job satisfaction according to the JDI/JIG survey results, which supports the relatively strong correlation finding.

Table 9

*JDI/JIG to Observed by Colleague Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.75487492 |
| R Square | 0.569836145 |
| Adjusted R Square | 0.542950904 |
| Standard Error | 13.33599851 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3769.529412 | 3769.529412 | 21.19512879 | 0.000293449 |
| Residual | 22 | 2845.581699 | 177.8488562 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 207.5751634 | 11.85966736 | 17.50261261 | 7.40171E-12 | 182.4337917 | 232.7165351 | 182.4337917 | 232.7165351 |
| X Variable 1 | 21.05882353 | 4.574209751 | 4.603816763 | 0.000293449 | 11.36193204 | 30.75571502 | 11.36193204 | 30.75571502 |

**Observations, evaluations, and walkthrough analysis.** The JDI/JIG to observations/evaluations/walkthroughs regression analysis is significant due to the Significance F value of 0.0005 being less than 0.05, so the null hypothesis is rejected as shown in Table 10. The Multiple R is 0.734, which demonstrates a relatively strong correlation. The R Square value of 0.539 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.510 eliminates the effect of unknown variables.

Survey participants provided an average rating of 3.18 on the four point Lexile rating, which is slightly higher than the (3) Beneficial rating. Administrators expressed the benefit of providing documented classroom visits and evaluations because it, "gave

opportunities to point out a teacher's strengths and identify areas they could grow in." However, the amount of support provided as a result of an observation was inconsistent, but valued when received.

Table 10

*JDI/JIG to Observations/Evaluations/Walkthrough Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.734637578 |
| R Square | 0.539692371 |
| Adjusted R Square | 0.510923144 |
| Standard Error | 13.7953482 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3570.125 | 3570.125 | 18.75936307 | 0.000516005 |
| Residual | 22 | 3044.986111 | 190.3116319 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 196.8472222 | 14.98911119 | 13.13268143 | 5.51088E-10 | 165.071726 | 228.6227185 | 165.071726 | 228.6227185 |
| X Variable 1 | 21.125 | 4.87739213 | 4.331208038 | 0.000516005 | 10.78539058 | 31.46460942 | 10.78539058 | 31.46460942 |

**In-district professional development analysis.** The JDI/JIG to in-district professional development regression analysis is significant due to the Significance F value of 0.001 being less than 0.05, so the null hypothesis is rejected as shown in Table 11. The Multiple R is 0.684, which demonstrates a weak correlation. The R Square value of 0.468 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.435 eliminates the effect of unknown variables.

Participating new teachers surveyed about the benefit of in-district professional development had an average rating of 3.35 on the four point Lexile rating, which is

notably higher than the (3) Beneficial rating. A weak correlation finding was determined for the impact of in-district professional development on job satisfaction.

Table 11

*JDI/JIG to In-District Professional Development Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.684565808 |
| R Square | 0.468630345 |
| Adjusted R Square | 0.435419742 |
| Standard Error | 14.82200498 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3100.041804 | 3100.041804 | 14.11086512 | 0.001724151 |
| Residual | 22 | 3515.069307 | 219.6918317 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 183.1782178 | 20.80524365 | 8.804425504 | 1.56598E-07 | 139.0730716 | 227.2833641 | 139.0730716 | 227.2833641 |
| X Variable 1 | 23.5049505 | 6.257235788 | 3.756443147 | 0.001724151 | 10.24020319 | 36.7696978 | 10.24020319 | 36.7696978 |

**Out-of-district professional development analysis.** The JDI/JIG to out-of-district professional development regression analysis is significant due to the Significance F value of 0.02 being less than 0.05, so the null hypothesis is rejected as shown in Table 12. The Multiple R is 0.532, which demonstrates a weak correlation. The R Square value of 0.283 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.239 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of out-of-district professional development had an average rating of 3.47 on the four point Lexile rating, which is significantly higher than the (3) Beneficial rating. However, a weak comparison

finding was determined for the impact of out-of-district professional development on job satisfaction.

Table 12

*JDI/JIG to Out-of-District Professional Development Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.532786885 |
| R Square | 0.283861865 |
| Adjusted R Square | 0.239103232 |
| Standard Error | 17.20707219 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 1877.777778 | 1877.777778 | 6.342058354 | 0.022815644 |
| Residual | 22 | 4737.333333 | 296.0833333 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 188 | 28.96381843 | 6.490856877 | 7.44588E-06 | 126.5994478 | 249.4005522 | 126.5994478 | 249.4005522 |
| X Variable 1 | 21.66666667 | 8.603536095 | 2.518344368 | 0.022815644 | 3.427984907 | 39.90534843 | 3.427984907 | 39.90534843 |

**Professional learning community analysis.** The JDI/JIG to professional learning community (PLCs) regression analysis is significant due to the Significance F value of 0.001 being less than 0.05, so the null hypothesis is rejected as shown in Table 13. The Multiple R is 0.682, which demonstrates a weak correlation. The R Square value of 0.466 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.432 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of PLCs had an average rating of 2.59 on the four point Lexile rating, which is notably lower than the (3) Beneficial rating. A weak comparison finding was determined for the impact of PLCs on job satisfaction.

Table 13

*JDI/JIG to Professional Learning Community Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.682645708 |
| R Square | 0.466005162 |
| Adjusted R Square | 0.432630485 |
| Standard Error | 14.85857325 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3082.675926 | 3082.675926 | 13.96283647 | 0.001797575 |
| Residual | 22 | 3532.435185 | 220.7771991 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 217.4814815 | 11.96228794 | 18.18059242 | 4.14187E-12 | 192.1225639 | 242.8403991 | 192.1225639 | 242.8403991 |
| X Variable 1 | 16.02777778 | 4.289300633 | 3.7366879 | 0.001797575 | 6.934866635 | 25.12068892 | 6.934866635 | 25.12068892 |

**Best practices video archive analysis.** The JDI/JIG to best practice video archive regression analysis is significant due to the Significance F value of 0.0003 being less than 0.05, so the null hypothesis is rejected as shown in Table 14. The Multiple R is 0.749, which demonstrates a relatively strong correlation. The R Square value of 0.561 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.534 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of out-of-district professional development had an average rating of 3.12 on the four point Lexile rating, which is notably higher than the (3) Beneficial rating. The beneficial rating for best practices video archive comparison was consistent with the job satisfaction results, which supports the relatively strong correlation finding.

Table 14

*JDI/JIG to Best Practices Video Archive Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.749640941 |
| R Square | 0.561961541 |
| Adjusted R Square | 0.534584137 |
| Standard Error | 13.4575097 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3717.438034 | 3717.438034 | 20.52647313 | 0.000341254 |
| Residual | 22 | 2897.673077 | 181.1045673 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 181.3076923 | 17.7045252 | 10.24075428 | 1.97079E-08 | 143.7757755 | 218.8396091 | 143.7757755 | 218.8396091 |
| X Variable 1 | 25.36538462 | 5.598662453 | 4.530615094 | 0.000341254 | 13.49675041 | 37.23401882 | 13.49675041 | 37.23401882 |

**Non-tenured teacher collaboration analysis.** The JDI/JIG to non-tenured teacher collaboration regression analysis is significant due to the Significance F value of 0.001 being less than 0.05, so the null hypothesis is rejected as shown in Table 15. The Multiple R is 0.696, which demonstrates a weak correlation. The R Square value of 0.485 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.453 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of non-tenured teacher collaboration had an average rating of 3.53 on the four point Lexile rating, which is significantly higher than the (3) Beneficial rating and the third highest of all induction activities currently provided in the district. The beneficial rating for non-tenured teacher comparison was not consistent with the job satisfaction results, which had a weak correlation finding.

Table 15

*JDI/JIG to Non-Tenured Teacher Collaboration Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.696721311 |
| R Square | 0.485420586 |
| Adjusted R Square | 0.453259372 |
| Standard Error | 14.58595215 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3211.111111 | 3211.111111 | 15.09335422 | 0.001314625 |
| Residual | 22 | 3404 | 212.75 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 191.75 | 17.95687107 | 10.67836369 | 1.09386E-08 | 153.6831339 | 229.8168661 | 153.6831339 | 229.8168661 |
| X Variable 1 | 21.25 | 5.469732055 | 3.885016631 | 0.001314625 | 9.654686032 | 32.84531397 | 9.654686032 | 32.84531397 |

**Non-tenured teacher/mentor collaboration analysis.** The JDI/JIG to non-tenured teacher/mentor regression analysis is significant due to the Significance F value of 0.01 being less than 0.05, so the null hypothesis is rejected as shown in Table 16. The Multiple R is 0.586, which demonstrates a weak correlation. The R Square value of 0.344 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.303 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of non-tenured teacher/mentor collaboration had an average rating of 3.12 on the four point Lexile rating, which is slightly higher than the (3) Beneficial rating. The beneficial rating for non-tenured teacher/mentor comparison was not consistent with the job satisfaction results, which had a weak correlation finding.

Table 16

*JDI/JIG to Non-Tenured Teacher/Mentor Collaboration Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.586835789 |
| R Square | 0.344376243 |
| Adjusted R Square | 0.303399758 |
| Standard Error | 16.46402138 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 2278.087111 | 2278.087111 | 8.404240737 | 0.010462547 |
| Residual | 22 | 4337.024 | 271.064 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 204.88 | 19.48049281 | 10.51718773 | 1.35577E-08 | 163.5832001 | 246.1767999 | 163.5832001 | 246.1767999 |
| X Variable 1 | 18.112 | 6.247656841 | 2.899006854 | 0.010462547 | 4.867559156 | 31.35644084 | 4.867559156 | 31.35644084 |

**Central administrator/non-tenured teacher analysis.** The JDI/JIG to central administrator non-tenured teacher meeting regression analysis is significant due to the Significance F value of 0.002 being less than 0.05, so the null hypothesis is rejected as shown in Table 17. The Multiple R is 0.676, which demonstrates a weak correlation. The R Square value of 0.457 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.423 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of non-tenured teacher/mentor collaboration had an average rating of 2.76 on the four point Lexile rating, which is slightly below the (3) Beneficial rating. The beneficial rating for central administrator non-tenured teacher meetings comparison were consistent with the job satisfaction results, which had a weak correlation finding.

Table 17

*JDI/JIG to Central Administrator Non-Tenured Teacher Meeting Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.676479799 |
| R Square | 0.457624918 |
| Adjusted R Square | 0.423726476 |
| Standard Error | 14.97471082 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3027.239683 | 3027.239683 | 13.49988033 | 0.002051063 |
| Residual | 22 | 3587.871429 | 224.2419643 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 203.2285714 | 15.90827062 | 12.77502604 | 8.2661E-10 | 169.5045442 | 236.9525986 | 169.5045442 | 236.9525986 |
| X Variable 1 | 19.72857143 | 5.369460838 | 3.674218329 | 0.002051063 | 8.345822944 | 31.11131991 | 8.345822944 | 31.11131991 |

**Principal non-tenured teacher meeting analysis.** The JDI/JIG to principal non-tenured teacher meeting regression analysis is significant due to the Significance F value of 0.0009 being less than 0.05, so the null hypothesis is rejected as shown in Table 18. The Multiple R is 0.710, which demonstrates a relatively strong correlation. The R Square value of 0.504 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.473 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of principal non-tenured meetings comparison had an average rating of 2.88 on the four point Lexile rating, which is slightly below the (3) Beneficial rating. However, the job satisfaction for principal non-tenured meeting comparison demonstrated a relatively strong correlation finding.

Table 18

*JDI/JIG to Principal Non-Tenured Teacher Meeting Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.710216458 |
| R Square | 0.504407417 |
| Adjusted R Square | 0.473432881 |
| Standard Error | 14.31432849 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 3336.711111 | 3336.711111 | 16.28458327 | 0.000958002 |
| Residual | 22 | 3278.4 | 204.9 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 195.68 | 16.34593527 | 11.97117184 | 2.13041E-09 | 161.0281652 | 230.3318348 | 161.0281652 | 230.3318348 |
| X Variable 1 | 21.92 | 5.431905743 | 4.03541612 | 0.000958002 | 10.40487423 | 33.43512577 | 10.40487423 | 33.43512577 |

**Administrative support analysis.** The JDI/JIG to administrative support regression analysis is significant due to the Significance F value of 0.0001 being less than 0.05, so the null hypothesis is rejected as shown in Table 19. The Multiple R is 0.781, which demonstrates a relatively strong correlation. The R Square value of 0.610 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.586 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of administrative support had an average rating of 3.65 on the four point Lexile rating, which is significantly above the (3) Beneficial rating. Furthermore, it was the second highest rating for benefit. The job satisfaction for administrative support comparison demonstrated a strong correlation finding, which was the third highest correlated to job satisfaction.

Table 19

*JDI/JIG to Administrative Support Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.781360458 |
| R Square | 0.610524165 |
| Adjusted R Square | 0.586181925 |
| Standard Error | 12.68962649 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 4038.685185 | 4038.685185 | 25.08085418 | 0.000128753 |
| Residual | 22 | 2576.425926 | 161.0266204 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 173.7407407 | 17.52550623 | 9.913593279 | 3.09897E-08 | 136.5883272 | 210.8931543 | 136.5883272 | 210.8931543 |
| X Variable 1 | 25.94444444 | 5.18051832 | 5.008078892 | 0.000128753 | 14.96223621 | 36.92665268 | 14.96223621 | 36.92665268 |

**Principal support analysis.** The JDI/JIG to principal support regression analysis is significant due to the Significance F value of 0.00002 being less than 0.05, so the null hypothesis is rejected as shown in Table 20. The Multiple R is 0.824, which demonstrates a strong correlation. The R Square value of 0.679 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.659 eliminates the effect of unknown variables.

The survey of participating new teachers on the benefit of principal support had an average rating of 3.88 on the four point Lexile rating, which is significantly above the (3) Beneficial rating. Furthermore, it was the highest rating for benefit. Likewise, the job satisfaction for principal support comparison demonstrated a strong correlation finding, which was the highest correlation to job satisfaction. The effectiveness of the school principal has been found to be an important element of teacher working conditions and can enhance teacher satisfaction levels (Saiti & Papadopoulos, 2015).

Table 20

*JDI/JIG to Principal Support Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.824432193 |
| R Square | 0.679688441 |
| Adjusted R Square | 0.659668969 |
| Standard Error | 11.50786837 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 4496.214559 | 4496.214559 | 33.95136629 | 2.57484E-05 |
| Residual | 22 | 2118.896552 | 132.4310345 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 169.2413793 | 15.84810105 | 10.67896897 | 1.09298E-08 | 135.6449059 | 202.8378527 | 135.6449059 | 202.8378527 |
| X Variable 1 | 26.4137931 | 4.533171438 | 5.826780096 | 2.57484E-05 | 16.80389895 | 36.02368726 | 16.80389895 | 36.02368726 |

**Partial induction activities analysis.** The one area found low in both the benefit level survey and the regression analysis for job satisfaction was the administrator non-tenured teacher meetings. Table 21 shows the outcome from the regression analysis conducted when all induction activities were included excluding the administrator non-tenured teacher meetings. The Adjusted R Square of all induction activities (.810) and all induction activities excluding the administrator non-tenured teacher meetings (.814) yielded a difference of only .004.

Table 21

*JDI/JIG to Partial Induction Activities Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.908267392 |
| R Square | 0.824949656 |
| Adjusted R Square | 0.814009009 |
| Standard Error | 8.507267035 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 5457.133633 | 5457.133633 | 75.4022766 | 1.8845E-07 |
| Residual | 16 | 1157.977478 | 72.3735924 | | |
| Total | 17 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 153.8862069 | 12.40891038 | 12.40126668 | 1.27569E-09 | 127.580492 | 180.1919218 | 127.580492 | 180.1919218 |
| X Variable 1 | 2.300538793 | 0.264933777 | 8.683448428 | 1.8845E-07 | 1.738904274 | 2.862173312 | 1.738904274 | 2.862173312 |

**All induction activities regression analysis.** The JDI/JIG to all induction activities regression analysis is significant due to the Significance F value of 0.0000002 being less than 0.05, so the null hypothesis is rejected as shown in Table 22. The Multiple R is 0.906, which demonstrates a strong correlation. The R Square value of 0.821 indicates the value of the Multiple R that did not happen by chance. The Adjusted R Square value of 0.810 eliminates the effect of unknown variables.

These findings demonstrate a correlation significantly higher than any other single comparison of JDI/JIG to an individual induction activity. The JDI/JIG to principal support comparison is the highest single JDI/JIG to induction activity correlation with an Adjusted R Square of 0.659. However, the Adjusted R Square for all induction activities combined is 0.810. The difference between all induction activities and principal support is 0.151, which is a significant difference and demonstrates the positive impact combining induction activities has on the correlation to job satisfaction.

Table 22

*JDI/JIG to All Induction Activities Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.906348902 |
| R Square | 0.821468333 |
| Adjusted R Square | 0.810310104 |
| Standard Error | 8.591444929 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 5434.104296 | 5434.104296 | 73.61995509 | 2.21011E-07 |
| Residual | 22 | 1181.006816 | 73.81292598 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 154.5524423 | 12.48090314 | 12.38311367 | 1.30322E-09 | 128.0941096 | 181.010775 | 128.0941096 | 181.010775 |
| X Variable 1 | 2.151647103 | 0.250768666 | 8.580207171 | 2.21011E-07 | 1.62004128 | 2.683252927 | 1.62004128 | 2.683252927 |

**JDI/JIG to stress analysis.** The JDI/JIG to stress regression analysis is not significant due to the Significance F value of 0.340 being more than 0.05, so the null hypothesis is accepted as shown in Table 23. The participant data does not indicate that a correlation exists between job satisfaction and stress.

Table 23

*JDI/JIG to Stress Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.238464986 |
| R Square | 0.056865549 |
| Adjusted R Square | -0.002080354 |
| Standard Error | 19.74673895 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 376.1719276 | 376.1719276 | 0.964707407 | 0.340623506 |
| Residual | 22 | 6238.939184 | 389.933699 | | |
| Total | 23 | 6615.111111 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 267.5374579 | 8.782559396 | 30.4623568 | 1.34817E-15 | 248.9192637 | 286.1556521 | 248.9192637 | 286.1556521 |
| X Variable 1 | -0.562710438 | 0.572911005 | -0.982195198 | 0.340623506 | -1.777227513 | 0.651806637 | -1.777227513 | 0.651806637 |

**Stress to all induction activities analysis.** A similar finding was determined when conducting the all induction activities to stress regression analysis. The regression analysis is not significant due to the Significance F value of 0.189 being more than 0.05, so the null hypothesis is accepted as shown in Table 24. The participant data does not indicate that a correlation exists between all induction activities and stress.

Table 24

*Stress to All Induction Activities Analysis*

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.324337834 |
| R Square | 0.105195031 |
| Adjusted R Square | 0.04926972 |
| Standard Error | 8.151028707 |
| Observations | 24 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 124.9716963 | 124.9716963 | 1.880991441 | 0.189150097 |
| Residual | 22 | 1063.028304 | 66.43926898 | | |
| Total | 23 | 1188 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* | *Lower 95.0%* | *Upper 95.0%* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 29.02480121 | 11.8411048 | 2.451190299 | 0.026110477 | 3.922780402 | 54.12682202 | 3.922780402 | 54.12682202 |
| X Variable 1 | -0.326296857 | 0.237913716 | -1.371492414 | 0.189150097 | -0.830651405 | 0.178057691 | -0.830651405 | 0.178057691 |

**Stress to Year Comparison Analysis**

The correlations between stress and JDI/JIG and all induction activities was not found. However, the results from the two regression analysis computations does not mean that the participating teachers did not feel stress. The survey data reveal that there were varying levels of stress evident as shown in Table 25. When dividing the stress into four levels, the data revealed that 29% of the participants computed to be at a low level of stress, 21% at a mild level of stress, 21% at a moderate level of stress, and 29% at a high level of stress. First year teachers were the least stressed with 66.6% experiencing low stress and 33.3% mild stress. First year teachers did not report responses that would chart them as experiencing moderate or high stress. The second year teachers were the opposite of first year teachers with 33.3% experiencing moderate stress and 66.6% experiencing high stress. Half of the year three teachers had low stress with an equal 16.6% reporting at the mild, moderate, and high stress levels. The fourth year teachers

did not have any teachers at the low level of stress, but did report equally at 33.3% for the mild, moderate and high stress levels.

Table 25

*Stress to Year Comparison Analysis*

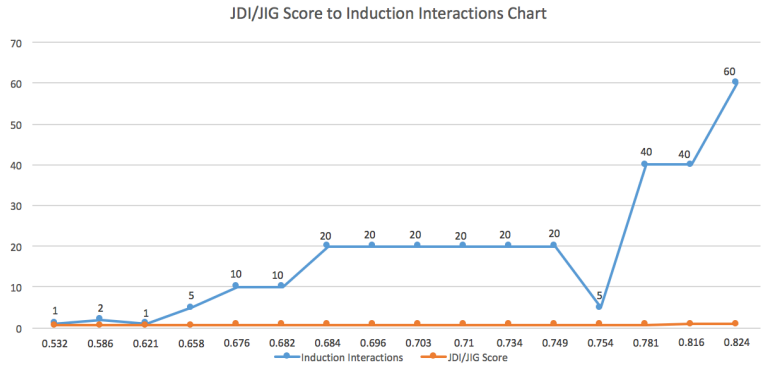
| | Low Stress | Mild Stress | Moderate Stress | High Stress |
|---|---|---|---|---|
| Year 1 | 66.6% | 33.3% | 0.0% | 0.0% |
| Year 2 | 0.0% | 0.0% | 33.3% | 66.6% |
| Year 3 | 50.0% | 16.6% | 16.6% | 16.6% |
| Year 4 | 0.0% | 33.3% | 33.3% | 33.3% |

**Induction Interactions Analysis**

Table 26 depicts the plotting of the JDI/JIG scores in relationship to the number of interactions occurring on average for each induction activity was conducted. The findings reveal that as the frequency of induction activity interactions increased, so did the JDI/JIG job satisfaction score. The one exception occurred with a low occurrence for a non-tenured teacher being observed by colleagues, yet their corresponding JDI/JIG score was higher than expected based on the pattern that evolved. In the interviews, a common finding was that although the non-tenured teachers did not frequently use the option of being observed by colleagues, they expressed the desire to do so and perceived that benefits would be received as a result of the experience in the form of feedback from a non-evaluative colleague.

Table 26

*JDI/JIG Score to Induction Interactions Chart*




**Results**

A side-by-side analysis of the qualitative and quantitative data findings was conducted. The comparisons were conducted for each induction activity, which demonstrated the benefits received when experienced alone. Furthermore, a partial versus all induction analysis was conducted to determine the optimum benefit level achieved based on the number and type of induction activities. An analysis of stress was conducted, as well.

**Welcome orientation.** The welcome orientation was a two-day series of mini-workshops and meetings provided to teachers newly hired to the district and scheduled prior to the start of the official school year. The days assisted new teachers by providing them opportunities to meet administrators and teacher leaders through learning sessions and acclimating the new teachers to the school, district, and community.

Wong and Wong (2001) include welcoming of new staff as a critical initial component of an induction system that extends over multiple years. The welcome orientation for first year teachers to the district was well received based on interview

findings, with a common response being, "It was helpful to learn useful information from the people that will be your administrators and colleagues". Respondents appreciated meeting and learning from district administrators, receiving both required and beneficial information in an organized manner, and being provided an opportunity to familiarize themselves with their assigned building and the building's and district's practices and routines. Although the regression analysis's weak correlation between job satisfaction and welcome orientation demonstrates only a weak prediction of job satisfaction when reviewing the welcome orientation as an induction activity by itself, the survey found that the welcome orientation induction activity provided a higher than "beneficial" rating, which indicates that recipients felt it added to their preparation for the job.

**Buddy teacher.** A buddy teacher was an unofficial untrained mentor who assists a teacher that is new to the district, but not compensated. The assignment of a buddy teacher by an administrator was an inconsistent practice according to teacher interview data and the practice was building dependent. The interviews with building administration supported the inconsistent assignment of a buddy teacher. Some administrators did not feel comfortable assigning a buddy teacher out of concern of violating the teacher contract since the assignment was unpaid. The majority of times when a new teacher had a buddy teacher, it was due to the new teacher identifying and securing a colleague as a buddy on their own or the building principal requesting, not requiring, an experienced teacher to provide assistance to the novice teacher. Findings indicate that a relatively strong correlation between having a buddy teacher and job satisfaction exists. Furthermore, surveyed participants responded that having a buddy teacher found a slightly higher than "Beneficial" rating. The data suggests that the buddy

teacher experience provides both benefits to being prepared for the task of teaching and has a correlation to job satisfaction.

**Mentor.** A mentor was similar to a buddy teacher except he or she is a tenured teacher in the district that is formally assigned to a teacher working with a provisional certification and training on how to be a mentor was provided. Mentoring is a requirement established by the State of New Jersey for teachers working under a provisional certification. The mentee financially compensates the appointed mentor whereas the buddy teacher does not.

The coding of teacher, mentor, and administrator interviews revealed an inconsistent assignment practice with mentors. Often, assigned mentors were not in the same grade level or subject area as the mentee. Teachers that had a misaligned grade level or subject area mentor-mentee assignment expressed receiving benefits from the relationship.

However, common interview statements were found, "I feel like a mentor in the same grade level is helpful, especially with routines and scheduling and just those things that you come across in the first year. If I am paired with a mentor in a different grade level, what their behavior management system looks like may not work in my Kindergarten class. I feel it is more relatable when you are in the same grade level because you are teaching the same age and you are coming across the same problems."

Such statements strongly indicate that when mentors are not in the same grade level or subject area, the benefits that could be received are not as high in comparison to having a mentor in the same grade level or subject area. This finding is supported by research that has found mentoring to be beneficial in providing support necessary for the

success of a new teacher. Mentoring was found to be the support that new teachers desired (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009) and which positively impacted teacher retention (Ingersoll & Kralik, 2004). This is further supported by the findings by Ingersoll and Strong (2011) who found that support and assistance for beginning teachers had a positive impact on retention, classroom instructional practices, and student achievement.

When running a regression analysis, a strong correlation was found between mentoring predicting job satisfaction. The survey produced a slightly higher than "Beneficial" rating. So, the data depicts mentoring as beneficial and a strong correlating predictor of job satisfaction.

**Observe colleague.** The induction activity of providing the opportunity for novice teachers to observe colleagues occurs when a teacher in their first four years within the district goes into a colleague's classroom and observes the instructional practices being implemented. Interviewed administrators and mentors suggested or mandated the induction activity to new teachers to go into identified classrooms to learn about and observe a model of a specific instructional practice. Administrators identified classroom management and student engagement as two common areas of need. Mentors focused more on instructional delivery and proper usage of resources as areas of need, though they identified classroom management as a common area of need, as well. Novice teachers expressed the benefit of such an activity.

One second year teacher reported, "Going into a classroom and seeing the ideas and how you could approach different things in the classroom is so beneficial and how observing a colleague is really encouraged by the principal and others."

Although the benefit rating compiled from survey results for observing colleagues was notably higher than the "Beneficial" rating, the regression analysis found a weak correlation for predicting job satisfaction.

The induction activity of having a colleague observe a first to fourth year teacher usually happened as a result of an administrator or mentor requesting that the new teacher have a colleague observe them in order to receive feedback on instructional practices, which predominantly had the mentor observing the mentee. Likewise, on an equal number of occasions, the new teacher took it upon himself/herself to ask a colleague to observe them usually a mentor or buddy teacher. During interviews, teachers shared their perspective of the induction activity.

A third year teacher explained, "I've had the literacy coaches come in to observe me and give me feedback. I was struggling in teaching guided reading. After they gave me the feedback, I tried what they said while they observed and we kept doing this until I got better and felt more comfortable in this area of teaching."

Such interview statements show that needs were identified and personnel resources were provided with expertise in the area of need. The outcome was improved instructional practices and confidence in teaching. Also, during the coding of teacher interviews, it was revealed that participants felt that being observed by colleagues was a practice that would be beneficial if it was utilized more by new teachers. New teachers were hesitant to impose on a colleague in that manner.

**Observed by colleague.** The correlation between being observed by colleagues and job satisfaction demonstrated a relatively strong correlation. However, the benefit rating was found to be slightly below "Beneficial" from the survey data. This can be

attributed to the limited usage out of concern for imposing on a colleague. Often, novice teachers waited for a mentor, colleague, or supervisor to suggest a colleague or mentor come in to observe rather than seek out colleagues on their own to observe and provide feedback.

Observations and evaluations are requirements set forth by AchieveNJ and are a significant part of the teacher evaluation system. These evaluative reports summarize classroom visits which look for specific standards of practice that are recorded and provided as feedback to the observed teacher. Walkthroughs are informal visits to a classroom, which may be targeted in their approach or simply a check-in to see the instructional practices being implemented. These interactions were usually recorded and provided to teachers for feedback, but not always.

**Observations, evaluations, and walkthroughs.** Observations, evaluations, and walkthroughs had an impact on job satisfaction according to the JDI/JIG survey results, which supports the relatively strong correlation finding. Teachers expressed the benefits received from the observation feedback.

A third year teacher responded, "Observations are helpful because they reaffirm the areas you thought you were good at, but also points out areas where you experienced some difficulty. I like how we brainstorm ideas on how to handle situations or approach instruction differently. It really improves my understanding and teaching."

A second year teacher stated, "Observations are fully supportive."

The benefits received from observations, evaluations, and walkthroughs scored slightly better than the "Beneficial" rating on the survey, which supports the benefit received and its correlation to job satisfaction.

**In-district professional development.** In-district professional development was provided by teachers from the district to their colleagues. The professional development was offered during the school year on professional development days and after school. Through the Collaborative Professional Learning Academy (CPLA), teachers were able to attend professional development sessions developed as a result of teacher feedback and offered over the summer months. A consistent finding from coding of interviews of teacher, mentor, and administrator participants was that it was preferred to have the district teachers be the providers of the professional development because follow-up advice or questions were simplified due to the expert being accessible within the district at any time.

A third year teacher explained, "Yes, the professional development offered by other teachers is amazing. I have benefitted from professional development in technology, planning, instruction, and student engagement. I love how I can easily go to the teacher that presented at any time after the session to pick their brains for additional assistance."

Principals share the same feelings. "Through my observations and classroom visits, I see some great instructional practices going on. I want these shared with others in my building. This is when I strongly encourage the individuals to reach out to the CPLA facilitators and see if they can be a presenter. The best part is that their own colleagues start to see them as experts in the area and seek them out for advice. What a great confidence booster for a new teacher."

Although a weak correlation between the activity and job satisfaction was found when conducting a regression analysis, the benefit received as found in survey data was

notably higher than the "Beneficial" rating.

**Out-of-district professional development.** Out-of-district professional development was provided by an outside provider or professional group in a specialty area when the district did not have a resident expert to provide the training. The professional development was offered on an infrequent and case-by-case basis. Interviews revealed that the usage of out-of-district professional development was very limited and usually initiated by a teacher being a member of a professional organization desiring to attend a conference in their specialty or as a result of the adoption of a curriculum or resource.

A third year teacher said, "I teach History and am part of the National Council of Teacher of Social Studies. I attend some of their provided professional development since it is very specific to my area."

A fourth year teacher explained, "Since we are adopting a new preschool curriculum, we are getting training right from the curriculum developer. None of us have expertise in this area so it makes sense to bring in someone from outside the district."

In the former situation, the initiation came from the teacher. The latter was the result of an administrator requiring the training. The regression analysis showed a weak correlation between job satisfaction and out-of-district professional development. However, the beneficial rating was significantly higher than the "Beneficial" rating, which indicates the users of the activity found it to be very beneficial to their own practice and knowledge building.

**Professional learning community.** Professional Learning Community (PLCs) were opportunities where teachers could meet to review student data in order to gain an improved understanding of the needs of each student and develop a plan to address areas of focus. The interviews disclosed that each building in the district has allocated PLC time in different ways as a result of teacher schedules. The elementary school did not share common preparation times with all grade level colleagues, so the PLC was split into two groups, which met at different times. The middle school did not have PLC time, so they met after school on a voluntary basis. The high school had a dedicated PLC period where they meet as a department on a weekly basis.

A first year teacher reported, "The middle school doesn't have a PLC time during the school day, so I do not attend."

A second year teacher explained, "We have PLCs and I find those helpful even to see how the same student is doing in different classes. We hear about what other teachers are doing and the outcomes. Collaboration is so important to me and helps me to grow as an educator."

As a result of the inconsistent allocation of PLC time and its resulting implementation, the interview data demonstrated results similar to the identified inconsistencies. Regardless of the school, the lack of understanding of how to create and run an effective PLC was a consistent pattern found among all participants.

A second year teacher said, "We have PLCs, but I don't think we are doing them right. The curriculum department is planning on providing us training next year. We do talk about students, but we plan class trips and stuff, too."

A weak correlation was found between job satisfaction and PLCs. The level of

benefit received from PLCs from the survey results showed a notably lower than "Beneficial" rating. This has been attributed to the inconsistency in providing PLC time in the different buildings and a lack of training in how to create and operate a PLC.

**Best practices video archive.** The best practice video archive was a repository of videos created and submitted to the digital library from teachers and administrators. It is available to staff 24 hours a day, seven days a week. The repository grows as a result of teachers purposefully recording aspects of a lesson or an administrator identifying a best practice implemented in a classroom and requesting the teacher create and submit a video to the library.

A first year teacher expressed, "I love being able to view what is going on in other classrooms in areas of interest and need to me. I can do this at home when the craziness of school isn't all around me. I love how I can talk with the teacher that made the video afterwards to ask questions."

A different first year teacher said, "As someone new to teaching, the videos gave me a glimpse into other classrooms. I can see if I am doing things right or not and gain new ideas along the way."

The interviews were consistent in identifying that all participating teachers were aware of the repository and many had used the videos as part of their own professional development plan. Concerns were raised about inconsistency in this area, as well. The inconsistent usage was a result of the archive containing videos to meet areas of interest and need. Special area teachers were unable to locate a variety of resources they felt were applicable to them.

A second year teacher said, "I am an instrumental music teacher. There are so

few of us in the district. So, when I go to look at the videos, I don't see anything directly related to my area. I do find a number of good videos on general teaching practices though."

Regular and special education grade level and subject area teachers found the video library to have a multitude of videos pertinent to their needs and interests. "As an inclusion teacher, I have been able to view posted videos showing how other inclusion teaching pairs operate their classroom and have established their routines."

A relatively strong correlation between job satisfaction and the video repository was found. The survey of benefit levels yielded a better than "Beneficial" rating. The findings indicate that the video repository was found to be beneficial and can be used to predict job satisfaction. However, it could have a bigger impact if the library was expanded and users were provided a more user friendly reminder of new videos and existing topics in the repository.

**Non-tenured teacher collaborations.** Non-tenured first to fourth year teachers were provided several formal opportunities to collaborate during the school year. Additionally, first and second year teachers were grouped so they could collaborate while third and fourth year teachers were able to collaborate separately. These collaborations were open sessions without an administrator present and were offered for the first time this year.

A third year teacher shared, "We never had this opportunity before. It was great to share thoughts and experiences and just compare. Very beneficial. I hope this is offered more frequently."

While the regression analysis demonstrated a weak correlation between job

satisfaction and non-tenured teacher collaboration sessions, the benefit rating was significantly higher than the "Beneficial" rating from the survey. Such findings demonstrate that the activity was found to provide a benefit to those that experienced the opportunity, but may not influence job satisfaction directly on its own.

**Non-tenured teacher/mentor collaborations.** Non-tenured teachers in their first year of teaching were provided a few formal opportunities to collaborate with a group of mentors during the school year. These were open discussion sessions without an administrator present and were offered for the first time this year. Although the interviews of participating teachers and mentors revealed there were some benefits to the experience, especially being able to talk to others they may not normally have an opportunity to learn from, many felt that they already collaborated with their mentor and expressed concern that an additional meeting took away time that could be allocated to other endeavors to improve their teaching.

A first year teacher expressed, "I liked the fact that I could meet with other mentors and new teachers, but I am not sure the benefits outweighed the time away when I could have been doing something else. My mentor is great, but I could see how such sessions could be helpful to someone who doesn't connect or learn from their mentor."

A weak correlation between job satisfaction and mentor collaboration sessions was found, but the survey results yielded better than "Beneficial" ratings for the activity. Even though the induction activity was a new offering, it provided an unstructured exchange between colleagues, which was deemed beneficial to their professional development.

**Administrator non-tenured teacher meetings.** Central administrators held monthly meetings with one year of non-tenured teachers at a time. Each year's group was provided learning opportunities specific to their year of employment with the district. The first year teachers met with the Academic Achievement Officer to receive professional development on available instructional resources, teacher evaluation system, mentoring, and general information about the district in order to ease their transition. The Director of Curriculum & Instruction met with the second year teachers and focused on curriculum and instruction and instructional pedagogy. For the third year teachers, the Director of Special Education had been newly assigned to the group this year to assist participants in gaining insight into special education, I&RS, and 504. The fourth year teachers met with the Director of 21st Century Education to assist them in creating tenure presentations and to use technology in their classrooms as a means to engage students in learning.

A fourth year teacher said, "The sessions are very sequential and provide information related to what we would benefit knowing during each of the first four years of working in the district. They lead up to the tenure presentation. As a fourth year teacher, I can see my progress over the last four years."

The interviews had a common pattern of appreciating the benefits of hands-on learning experiences, modeling, and providing real classroom examples. Another pattern was a dislike for reading articles and discussing instructional practices through a theoretical lens, which had been experienced during the year two meetings.

A weak correlation was found for job satisfaction and the administrator non-tenured teacher meetings. The survey rating level was slightly below the "Beneficial"

rating. The lower rating was attributed to the year two sessions, which predominantly focused on reading articles instead of the preferred hands-on learning experiences. This induction activity was the only one on the list that showed a weak correlation and a lower than "Beneficial" rating, but was still relatively close to the "Beneficial" rating. However, even when removed from the all induction regression analysis, the correlation change was minimal.

**Principal non-tenured teacher meetings.** Principals held meetings with first through fourth year teachers on a consistent basis. The principals provided learning opportunities and listened to teacher identified needs. However, there was inconsistency in the practices between buildings. One building met on a monthly basis with the whole group. A second building met with the teachers on a one-on-one format without a set schedule. A third building met one-on-one with each teacher a minimum of twice a year formally and more often informally. Some teachers met with the principal more often dependent on needs as identified by either teacher or principal.

A second year teacher reported, "My principal does not hold formal monthly meetings. Instead, he meets me one-on-one to get to know what I need, which is different than others who I work with. I like this format because we already meet with the central administrators on a monthly basis with a group. We get the best of both worlds with this arrangement."

For the monthly held meetings with the whole group, a pattern of concern had been raised over the repetitive nature of the content reviewed each year.

A third year teacher said, "He sometimes repeats topics year after year, which is okay as a first or second year teacher. But, I am in my third year and it is kind of a waste

of my time when he does that. I wish the third and fourth year teachers met separately because our needs are different than first and second year teachers."

The principal interviews revealed each leader determined it was important that they use a format they felt best met the needs of their staff. A consistent interview finding was that the principals did not consult with the teaching staff about the format in which the meetings occurred, but did include staff in the formation of some of the meeting's content of focus.

A relatively strong correlation between job satisfaction and principal meetings was found. A benefit rating slightly below "Beneficial" was the result from the surveys. The lower rating was attributed to the repetitive topics and inconsistent practices across the district. One principal did not start to hold principal meetings with new staff until the current school year. So, the participating study teachers had different experiences based on the building where they worked and the year they were currently working in the district.

**Administrative support.** Administrative support had been provided by supervisors, directors, instructional coaches, and literacy coaches. The support had not been through formalized meetings, rather it had been provided on an as needed basis. The meetings varied in their occurrence from daily, weekly, or monthly. Some teachers interacted with supervisors, directors, and instructional and literacy coaches, while others interacted with only some of them.

A first year teacher explained, "One of the administrators is always available to help. They know we are new and struggle. They don't judge. They help. They give us resources, co-teach, co-plan, anything we need. I feel very comfortable approaching any

of them and admitting I need help."

The interviews demonstrated an equal pattern of teachers seeking out support from administrators and administrators identifying and providing support to teachers. Consistent findings of "open door", "approachable", and "helpful" were identified through the coding process of interview transcripts. Furthermore, the findings were consistent between interviews with teachers and administrators.

One principal shared, "As a building administrator, it is my job to be an instructional coach. If I am not able to provide the best assistance, I will get another administrator who can give what is needed. We work as a team with a collective effort to improve the instructional practices in the building, which in turn positively affects the students and their learning."

A relatively strong correlation was found between job satisfaction and administrative support. Participants rated administrative support as significantly above the "Beneficial" rating. These findings indicate that benefits are being received as a result of administrative support and the support has an ability to predict job satisfaction.

**Principal support.** Principal support had been provided to teachers on an as needed basis, not through routinely scheduled meetings. Similar patterns to administrative support had been identified as having equal occurrences of teachers seeking out support from principals and principals identifying and providing support to teachers. Furthermore, the findings were consistent between interviews with teachers and principals. Consistent findings of "present", "open door", "approachable", and "willing to help" were identified through the coding process of interview transcripts.

A different principal said, "We are a team. As their building leader, it is my job

to know their needs and be always open so they feel comfortable coming to see me and share their concerns. I will ensure they have the supports they need."

A second year teacher shared, "My principal is very approachable. Often I just grab her in the hallway and either tell her quickly what's going on or ask to meet with her if I have more to share. She is very accommodating. I definitely feel supported."

The regression analysis data found a strong correlation between principal support and job satisfaction. Additionally, the principal support received a benefit rating of just below "Highly Beneficial" on the survey, which is the highest out of any of the induction activities. The data demonstrates the importance of a strong building and instructional leader and the benefits that can be provided to the novice teaching staff as a result. Since this is the induction activity that has the strongest benefit, if the support is lacking, it can have a negative impact, as well.

**Partial versus all induction activities.** Each of the previous findings demonstrated the effects of single induction activities on providing benefits to participants and the correlation of each activity to predicting job satisfaction. The impact and perception of each induction activity on novice teachers was further supported by the inclusion of interview excerpts. The correlations ranged from weak to strong indicating that some individual induction activities could be a strong correlation to predicting job satisfaction, while others did not possess the same level of predictability.

If the induction supports were to be altered by removing the five lowest correlated induction activities in an effort to improve the predictability of induction activities having an impact on job satisfaction, the benefits received from those removed activities would be lost, as well. Of the five lowest correlated induction activities, four had benefit scores

above the (3) Beneficial rating: Out-of-district Professional Development (3.47), observation of colleagues (3.35), welcome orientation (3.18), and Non-tenured teacher/mentor meetings (3.12). The only exception was the central administrator non-tenured meeting with a score of 2.76, which is slightly below the Beneficial (3) rating. By removing those five induction activities, the small gain in job satisfaction correlation does not appear to be worth the loss in better than "beneficial" ratings for the induction activities. Furthermore, since every induction activity was not required to be utilized, it is in the teacher's best interest to be provided opportunities to leverage a multitude of activities to their benefit, if desired.

In an effort to determine if the combination of all induction activities with an Adjusted R Square of 0.810 yielded the highest correlation to job satisfaction, the lowest correlated induction activities were removed from the combined induction activities list one at a time and a regression analysis was conducted with each removal. The highest correlation was achieved with an Adjusted R Square of 0.847 when removing the lowest correlated activities: out-of-district professional development (0.239), non-tenured teacher/mentor meetings (0.303), welcome orientation (0.347), observation of colleagues (0.398), and central administrator non-tenured teacher meetings (0.423). The result yielded an improvement of the Adjusted R Square by a small increase of 0.037 over the Adjusted R Square of all induction activities combined.

The decision to retain the additional induction activities is further supported by Smith and Ingersoll (2004) who found that the most significant positive impact on new teacher satisfaction is when multiple components are part of a school or district's induction program. Bickmore and Bickmore's (2010) found that in a multifaceted

induction support system, if one induction approach failed, another would be able to fill the gap and lead to positive participant perceptions.

Furthermore, through the interviews, the data showed that these five areas were found to be perceived as less beneficial due to varied reasons. The out-of-district professional development was limited in its exposure since it only involved a small part of the population and impacted a specific group only, such as, preschool teachers or specific subject areas like Social Studies. The welcome orientation only occurred once. Although it was well received, the one-time event at the beginning of employment is not easily compared to other activities that are provided throughout the four years of induction. The non-tenured teacher/mentor meetings and observation of colleagues were impacted by a desire of the participants to not impose on their colleagues and at the same time use their limited time in a manner that would reap the most reward. Since they already work with their own mentor, they did not feel interacting with other mentors and mentees would be significantly more beneficial than the benefits already being received. The challenge associated with observing colleagues was influenced by missing time in one's own classroom and having to create substitute plans. A preference was to watch recordings of other classes, which could be viewed on preparation periods or during hours outside of the school day. The central administrator meetings, specifically the second year meetings, lacked a connection of content to the practices occurring in the classroom. It was perceived as more theoretical, which each felt they had already received while attending college. The desire was for more hands-on and practical knowledge, practices, and resources that could be leveraged to improve the instructional practices occurring in the classroom. Participants provided these ways to improve the

five lowest scoring induction activities because they communicated that there were benefit to the offerings, just not in its complete and current format. However, despite the five lower ratings, the entire induction activity list was deemed as desired due to the variety of supports it provided.

**Stress.** When analyzing the stress level based on the year of the participating teacher, the first and third year teachers were less stressed than the second and fourth year teachers. In the interviews, a common occurrence for first year teachers was a feeling of receiving a high level of support that made their transition to the position easier than expected.

A first year teacher stated, "In my first year of teaching, I wasn't really nervous because everyone seemed to be there for me and I had a mentor. My principal held meetings with us to make sure we knew what was coming up in the building so we were prepared. In my second year, I am a little more stressed because now some things are expected that I know and do. I don't have an official mentor anymore, but I do have fellow teachers in my grade level that help guide me."

A second year teacher stated, "I am nervous because I heard that teachers are usually non-renewed at the end of their second year."

A third year teacher reported, "As a third year teacher, I think teaching is coming more naturally now. I had a hard time in my first year. Felt better in my second year, but there were still bumps in the road. Now, I know what is expected, know all of the routines, and am familiar with what I have to teach. I am now starting to explore in my teaching and taking risks, which the administrators encourage."

The fourth year teacher interviews revealed a feeling of stress related to the fourth year tenure presentation that was to be presented to the central administrators as a culminating requirement before being granted tenure. Although the fourth year teachers felt supported in preparing the presentation, having to present in front of the administration was viewed as a stressful endeavor.

One fourth year teacher said, "In the fourth year administrator meetings, Mrs. X gave us each one-on-one attention. She showed me exactly what to do. So, I wasn't worried about the presentation itself, but I am scared to death to present to the superintendent and the rest of the central office administrators. I think I am most scared that I will do a horrible job and won't receive tenure."

A different fourth year teacher stated, "I know that most fourth year teachers receive tenure, but I don't want to be the exception. So, it's a little nerve racking."

**Research Question One**

The first research question asked, "How can an individualized induction program for teachers in the first to fourth year of teaching prepare individuals for the responsibilities of teaching?" An individualized targeted induction program for teachers in the first to fourth year of teaching prepares individuals for the responsibilities of teaching because it is not linear in its focus. The teachers are provided supports through colleagues, mentors, principals, and building and district administrators. It was a community effort that supported the newest members of the school and district. The areas of focus for the induction activities included orientation, professional development, observation of best practices, feedback on strengths and areas of growth, and collaboration with colleagues. Each non-tenured teacher in their first through fourth year

of teaching received what he/she needs in order to grow. The determination of needs was generated by colleagues, mentors, administrators, and were also self-identified by the novice teacher.

Although reflection is mandated in the fourth year of teaching in a culminating portfolio presentation, reflection occurred throughout the four years. The meetings, discussions, observations, and provided experiences called upon the novice teachers to critically reflect on their practices and identify areas of strengths and needs. As a result of identified needs, the novice teachers were supported in their efforts to grow in the areas identified through the induction activities and supports. At the conclusion of the four years before tenure is granted, a teacher needs to create a presentation that demonstrates their reflection on growth over the past four years. The presentations are digital portfolios that expand the first year of teaching through the fourth and include multi-media clips of evidence that supports the claims put forth by the teacher in their reflections. The central administrators are the audience for the presentation.

The participating teachers rated the multi-faceted induction supports on a four-point scale with the majority of the inductions reported as "Beneficial" or higher than "Beneficial". A few rated slightly below the" Beneficial" rating, but were still considered better than "Somewhat Beneficial". Not a single induction activity was rated at "Somewhat Beneficial" or "Not Beneficial".

The supports provided were selected to develop the knowledge, skills, and instructional practices of teachers. The activities varied from being provided in-district to being out-of-district. Topics addressed were designed to target known areas of weakness for novice teachers, such as, classroom management and student engagement. However,

other supports were provided based on teacher input and mentor and administrator feedback as a result of identified areas of need. Currently, there were 16 different induction activities available to novice teachers: Welcome orientation, buddy teacher, mentor, observation of colleagues, observation by colleagues, observations/evaluations/walkthroughs, in-district professional development, out-of-district professional development, professional learning communities, best practices video archive, non-tenured teacher collaboration, non-tenured teacher/mentor collaboration, central administrator non-tenured teacher meetings, principal non-tenured teacher meetings, administrative support, and principal support.

**Research Question Two**

The second research question investigated, "From the perspective of mentors, principals, and teachers in their first to fourth year of teaching, how have induction opportunities addressed identified areas of need?" Throughout the four years of support, teachers were able to either identify an area of need or had an administrator, mentor, or colleague make the area of need known. In all cases, the induction activities were readily available or the administrators were open to listen to the needs and created or found new learning opportunities to address those areas of need. During the interviews, teachers were able to share how in observations, evaluations, and walkthroughs, teachers and administrators were able to identify areas of strengths and areas each needed or wanted to grow within. Principal and administrative supports were rated by participants as providing the highest two benefit ratings out of all of the induction activities. Supports were identified and/or provided that enabled the teachers to achieve the set goals for personal growth. As previously stated, the survey results yielded benefit scores that

ranged from slightly below "Beneficial" all the way up to just under "Very Beneficial". The average benefit rating of all induction activities combined were 3.18, which is slightly above the three-point score for the "beneficial" rating. These results indicate that the provided induction activities were perceived as being beneficial.

However, although the provided induction activities were beneficial, there were other possible induction activities that could have been created and/or offered that could have addressed needs not currently being addressed or current needs already addressed. A survey requesting benefit ratings on new induction activities that were created as a result of input from interviews had been administered to participants at the end of the study. The results produced four additions to the induction program. The highest rated new induction activity scored a 3.27 benefit level on a four-point Likert scale. The induction activity proposed to have mentor teachers assigned from the same grade level or subject area as the teacher being mentored. At the same 3.27 rating, a second induction activity requested having practical, relevant, and hands-on learning experiences be part of the administrator non-tenured teacher meetings instead of reading articles. The next new induction activity at a benefit score of 3.20 was to have fifth year teachers share or present their fourth year tenure presentations with the first to fourth year teachers. The final new induction activity at 3.20 was to create a "Board" where teachers in their first through fourth year of teaching would be able to post areas where they would like to grow in their knowledge and understanding. This would be achieved by observing in classrooms that were currently using the area of interest in their classroom practice. The experienced teachers would extend the invitation to the novice teacher to observe in their

classroom at a designated time slot where they would be able to see the area of interest in action.

Mentors and principals expressed in the interviews that they experienced growth in the abilities of teachers from the beginning of the first year to the end of the current year. From the perspectives of the mentors and principals, descriptions of the novice teachers emerged including, "confidence", "taking risks", "seeks help", and "implementing things they learned". Principals witnessed growth in their observation, evaluation, and walkthrough reports and attributed it to the supports the novice teachers received throughout the induction program. Principals indicated that they suggested and/or provided supports from the induction list when they identified an area of need and then monitored the area for improvement. The principals reported that they noted improvements in the novice teachers as a result of the provided supports. The collaborations and meetings with mentors and principals had provided an open and informal feedback loop that had been identified as informative for mentors and principals and resulted in a means of informally monitoring new teacher progress.

In conclusion, the principals attributed improvements in instructional practices and confidence in teaching as a result of receiving supports in both quantity and quality in a manner never before provided in the district.

**Research Question Three**

The third research question asked, "Which instructional areas does a differentiated induction program positively impact for teachers in their first to fourth year of teaching?" The instructional areas impacted varied from teacher to teacher and were dependent on identified needs and areas of interest of the novice teacher. Due to the

ability of the induction program to access the strengths of teachers in all areas of teaching and learning, the induction program positively impacted any targeted area as long as the administrator, mentor, or teacher identified the needs and then sought the associated supports. The interviews revealed that in some cases when the induction activity could have supported an identified area of need, the novice teacher did not take advantage of the provided opportunity. The reasons varied. Some teachers did not want to impose on their colleagues for assistance. Others were hesitant to miss teaching their own students, did not want to expend the extra effort to prepare substitute plans, or felt the support may not have been able to adequately meet their needs. Therefore, as a result discovered through the interviews with teachers, mentors, and administrators, a comprehensive list of areas impacted differed from one participant to the next. They included student engagement, classroom management, technology integration, lesson planning, content instruction, data-driven decision making, and individual and small group instruction. In other cases, some induction supports were used during certain years, but no longer needed in later years. They reported that their needs changed as they improved in their instructional knowledge, skills, and practices. When novice teachers experienced improvements, they were the result of one induction support or the combination of several induction supports. Due to the diverse needs, a one size fits all approach to induction would not have been able to meet all of the needs and produce an outcome of improvements in different instructional areas. Relying only on mentoring would have been reliant on the knowledge, skills, and instructional practices of the mentor teacher and their understanding of the needs of the novice teacher.

**Research Question Four**

The fourth research question asked, "To what extent has the induction program provided opportunities for mentoring, collaboration, professional development, and reflection?" Mentoring, collaboration, professional development, and reflection were interwoven with one being part of the others and each was present in every induction activity. In order to develop novice teachers into effective educators, the induction program had a focus on the four key areas: mentoring, collaboration, professional development, and reflection. Each of these elements were crucial in providing a multi-directional approach to developing areas of need and afforded a support structure that yielded benefits that could be reaped throughout one's career. Within the framework of the multi-faceted individualized induction activities, mentoring was provided through different roles. The official mentoring occurred through a formal mentoring program mandated by the state of New Jersey. Also, the mentors provided guidance through collaborative sessions undertaken by mentor and mentee, and through one-on-one sessions and group mentor-mentee open discussions. Additional mentoring support and guidance were provided within the other induction activities available through the principals, administrators, and teaching colleagues. Each induction activity and the person or persons providing it guided the novice teachers to think about and approach instruction in a different manner. Through interviews, participating teachers, mentors, and principals shared a common belief that all professionals who come in contact with the teachers serve in the role of a mentor because each shares wisdom and skills based on personal experiences. Each contributed to developing the first to fourth year teachers into professionals that demonstrated growth in the targeted areas of need. Mentors need to

use observational data as the central focus of discussions with novice teachers. The observational information centered dialogue should be used to provide positive growth opportunities to novice teachers in an effort to inform and improve instructional practices.

A common importance of continuous reflection was voiced during the interviews. Reflections came in the form of feedback on lesson plans, implemented lessons, and instructional strategies and resources selected. Teachers shared that observations, evaluations, and walkthroughs all forced them to be reflective on their practices, even when they didn't agree with what was written in the reports. Furthermore, teachers shared that they viewed the fourth year administrator meeting's tenure presentation as a form of purposeful reflection in order for the teacher to self-identify the growth that had been achieved over their past four years of teaching. A common observation by fourth year teachers who had presented the tenure presentations were that they could not believe how much they thought they knew when they started teaching, yet, when looking back realized how much they needed to still learn. Although some felt they had become experts in limited areas, all felt that their growing was still an ongoing process and considered themselves lifelong learners. This assessment was shared in interviews by mentors and administrators, as well.

The selected methods of the study and the inclusion of teachers, mentors, and principals as participants afforded the researcher with a multitude of data points, both qualitative and quantitative, which provided a stronger relationship for the findings. Surveys provided concrete black and white responses that were able to be compared to one another. The comparisons revealed the differences in perceptions of participants.

Whereas, the interviews allowed open responses, which showed the multiplicity of the participants and how each individual was unique with their own needs, desires, and actions.

**Evidence of Trustworthiness**

In an effort to improve internal validity, eight new teachers were included from each of the three grade level spans – elementary middle, and high school. The sampling of participants was evenly selected from each of the four years of experience and from each building in the Centerville Public School District. By evenly selecting the participants, the responses were representative of the broader preschool to 12th grade population of first to fourth year teachers working in a racially diverse suburban public school district.

Since the researcher was employed with the district where the study took place, familiarity with the organization's culture had already been established. Furthermore, the researcher had prolonged engagement with the participating teachers, mentor, and principals, which assisted in establishing a relationship between the researcher and participants. When the researcher engaged in elements of the study, it was made clear that the researcher's role was as a researcher intent on investigating the research questions. Respondents were encouraged to be frank in their responses so as to ensure an accurate representation of the impact of induction experiences on teachers in their first four years of teaching in the district.

The researcher checked for accuracy and validity in the study through the use of specific procedures and through the use of a consistent research approach. The validity strategies that were utilized involved triangulation of data from multiple participants

before identifying themes. Additionally, triangulation was achieved through the gathering of data through different methods: interviews and surveys. Interview transcripts were shared with each participant before coding of transcripts was undertaken. After themes were identified, the findings were shared with participants for feedback, as well, in order to ensure accuracy. Triangulation of data was also achieved by gathering data from different perspectives within the organization: mentors, administrators, and teachers in their first four years of teaching with the district. The individual viewpoints and experiences were verified against one another, thus, forming a richer picture based on the contributions from the varied range of individuals. During the interpretation phase of the study, interpretations were shared with family, professional colleagues, and outside readers in an effort to determine the honesty of interpretations (Krathwohl & Smith, 2005).

Although the intent of the study was to investigate the impact of using multi-faceted induction activities differentiated to individual needs with preschool to 12th grade teachers in their first four years of teaching teachers in the Centerville Public School District, the provided multi-faceted induction activities could be transferred to other districts if similar conditions existed. The staff and administrative involvement dedicated to providing the supports to participating teachers would need to be committed for the endeavor to enhance the learning experiences of novice teachers. Additionally, similar importance and emphasis on providing professional development opportunities must be made available to novice staff. Furthermore, a similar level and type of multi-faceted induction activities would need to be made available to preschool to 12th grade teachers in their first four years of teaching with the district. Lastly, consideration must be given

to the fact that districts may have differing expectations as to what constitutes best instructional practices, which could alter the impact and outcome of the provided supports to the novice teachers.

The provided system of induction activities and its ability to yield dependable results were demonstrated by the interview and survey input provided by the different participating groups: mentors, administrators, and teachers in their first four years with the district. The provided information was achieved through a consistent approach used in interacting with the participants, questions posed to participants, and sharing of information. The dependability was further supported by triangulation through the use of different data collection methods, and sharing the provided information, identified themes, and findings with participants in order to ensure accuracy and completeness of the information.

Reliability was achieved by creating an audit trail, coding and recoding, and peer examination. The audit trail started with a detailed recording of used methods and procedures so that other researchers desiring to replicate the process would be able to do so. The audit trail entailed storage of all recordings, transcriptions, surveys, and draft interpretations in a location that could be accessed by external reviewers with permission of the researcher.

Although bias can enter the research design process due to the researcher and/or participants, the researcher was cognizant of potential preconceptions about the subject. The researcher fully informed participants of the purpose of the study, any benefits or potential risks participants may experience, and stressed the importance of full participation in the study.

## Summary

Teachers in their first to fourth year of teaching in Centerville Public School District were prepared for the responsibilities of teaching due to being provided individualized induction activities to meet needs identified by mentors, administrators, and through self-reflection by the novice teacher. The supports were provided by colleagues, mentors, principals, and building and district administrators through focuses on orientation, professional development, best practices, feedback, collaboration, and reflection. The provided supports were rated on average as higher than "Beneficial" (3), which provided them what they needed in order to grow as professionals.

As a key factor in enabling novice teachers to work towards achieving personal growth, the participating teachers identified the openness of colleagues and administrators in listening to and providing participants learning opportunities based on identified needs. However, the provided induction activities could be expanded further in order to potentially afford additional benefits through the support network.

Mentors and principals identified notable growth in new teachers in areas of confidence, taking risks, seeking assistance, and implementing knowledge, skills, and resources learned through provided induction activity learning opportunities. According to mentors and principals, the growth of novice teacher was attributed to the provided supports, as well as, the open collaboration and communication feedback loop where participants received continual guidance and support.

The instructional areas impacted by the induction activities varied based on areas of need as identified by mentors and principals and self-identified areas of need and interest by the participant teachers. The areas impacted included student engagement,

classroom management, technology integration, lesson planning, content instruction, data-driven decision making, and individual and small group instruction.

Lastly, the induction program had a primary focus on mentoring, collaboration, professional development, and reflection. Each focus was achieved through a multi-directional approach designed to develop the identified needs through a provided support system of mentors, colleagues, various administrators, and in-person and digital resources.

# Chapter 5

## Summary, Conclusions, and Recommendations

Teachers in their beginning years of teaching often are not adequately prepared for the challenges of teaching. As a result, teachers experience dissatisfaction in the teaching profession resulting in high attrition rates during their first four years of teaching. The purpose of the conducted study was to improve induction of new preschool to 12th grade teachers through differentiated induction activities tailored to individual teacher's needs, which would impact instructional knowledge, skills, and practice.

The study's findings revealed that by providing a multitude of induction activities tailored to identified individual needs, a higher correlation to job satisfaction and benefits were found when compared to any one induction activity by itself. Mentoring, an induction support found to positively influence teacher retention and a key component of effective induction programs (Hallam et al., 2012; Feiman-Nemser, 1996), did not have as strong of a correlation to job satisfaction when provided as a sole induction activity. However, when mentoring was combined with all induction activities, a stronger correlation to job satisfaction was found. Furthermore, when participating teachers rated the benefit level of the offered induction activities, mentoring ranked 12th out of 16 in the list, although mentoring was ranked as beneficial. On a four-point scale, 12 of the 16 induction activities rated higher than (3) Beneficial up to almost (4) Very Beneficial and four of the 16 induction activities rated significantly above (2) Somewhat Beneficial and slightly below (3) Beneficial. When benefit ranking of all induction activities were averaged, they scored above the beneficial (3) rating and higher than mentoring rated by

itself. Mentors and principals identified changes in novice teachers including, "confidence", "taking risks", "seeks help", and "implementing things they learned". These findings demonstrate that a multi-faceted induction system produced benefits and job satisfaction.

## Interpretation of the Findings

The study revealed that an induction system that provided multi-faceted induction activities impacts a novice teacher's knowledge and skills, enables a differentiated individualized approach through the providing of a multitude of induction activities, and when a community of support is present, teachers will grow in their abilities to teach. The findings are supported by Carver-Thomas and Darling-Hammond's (2017) recent findings. The authors investigated the attrition trends of Black female teachers and determined benefits could be achieved through a tailored approach to induction. The study found that interventions specific to the Black female teacher group need to be in place in order to improve retention rates. The rationale was due to Black female teachers experiencing differences in their teacher preparation. As a result, the study called for policy revisions that would put in place changes in teacher mentoring and induction for this group.

### Impact on Knowledge and Skills

The field of education has been challenged with the responsibility to ground new teachers, help them grow in confidence and experience, and give the novice teachers supports in their career choice (Jandoli, 2013). The studies in the literature review and cited above demonstrated how different induction components were able to positively impact novice teachers by improving knowledge, skills, and job satisfaction by providing

one induction activity or combining different induction activities to bring about desired positive changes. The induction activities in these studies included mentoring, professional development, collaboration, school leadership support, and professional learning communities with each experiencing improvement in teacher satisfaction, classroom management skills, instructional strategies, and meeting new teacher's personal and professional needs. The extensive induction supports provided in the study included all of the induction activities from the other studies in the literature review, as well as, additional induction activities. These were able to yield positive outcomes when combined. Combined, they had a higher correlation to job satisfaction than any single induction activity.

**Multiple Induction Activities**

The wide-ranging induction activities provided choice to participants and due to the high number of induction activities available, made tailoring induction activities to identified needs easier. Furthermore, the structure of the conceptual framework permitted the expansion or changing of the provided induction activities, while still being able to improve instructional knowledge, skills, practice, and contribute to job comfort and job fulfillment, which in turn influences job satisfaction.

The pilot study confirmed and extended the findings of other research where improved outcomes were experienced by novice teachers through the inclusion of more than one induction activity. Although Feiman-Nemser (1996) and Hallam et al. (2012) identified mentoring as a critical topic in positively influencing teacher retention and being a key component of an effective induction program, Smith and Ingersoll (2004) found that effective induction programs require more than mentoring and should be

comprised of induction packages. The induction package provided by Centerville Public School District included 16 different induction activities, which is more extensive than the research found and included in the literature review. Within this study, the findings demonstrate that mentoring had a strong correlation to job satisfaction at a Multiple R of .816 and Adjusted R Square of .645, but was surpassed by principal support having a strong correlation to job satisfaction at a Multiple R of .824 and Adjusted R Square of .659. When combining all provided induction activities, the findings demonstrate that a strong correlation to job satisfaction at a Multiple R of .906 and Adjusted R Square of .810, which is significantly higher than all other single induction activity to job satisfaction correlations. The data if further supported by the beneficial ratings with mentoring by itself scoring a 3.06, which is slightly above the beneficial (3) rating, but the combined induction activity beneficial ratings scoring a 3.18. The combined rating is 0.12 higher than mentoring alone indicating that a higher level of benefit was received when the induction activities were combined. The benefits identified by mentors and principals included novice teachers improving in confidence, taking risks, seeking help, and implementing things they learned. Participating teachers identified realizing how much they had grown as education professionals and how their comfort level with teaching had improved.

**Culture of Support**

The system in this study utilized a multitude of 16 different induction activities, which participants stated would not have been possible without the commitment and contributions of various school and district stakeholders. The induction system in the study involved teachers, mentors, principals, and administrators in conjunction with

internal and external resources, all working in unison to provide supports in various areas of identified need. The findings of the study confirmed the key discoveries by Moir (2009) who found that induction systems require a system-wide commitment to developing teacher effectiveness.

A further confirmation and extension of this pilot study in comparison to other research indicated induction activities demonstrated a leadership team that provided supports to its teachers and made available numerous opportunities for novice teachers to form collegial relationships with one another, as well as, more experienced teachers, mentors, and administrators. Furthermore, this study demonstrated a school culture of support as evidenced by the involvement of teachers and school and district leaders in providing induction activities and supporting teachers in their first four years of teaching in the district. The available 16 different induction activities included professional learning communities, opportunities for collaboration, teacher control and choice, which were able to be accessed by participating teachers so that the provided supports could be selected and tailored to meet their individual needs. Moore Johnson (2015) found that the most desired working conditions that predict teacher satisfaction were when school leadership supported teachers, opportunities were provided to form collegial relationships, and elements of a positive school culture were present. A school's culture is influenced by the school leaders, who are the individuals having a significant impact on the career commitments of teachers (Tamir, 2013). Sterns et al. (2015) found that professional communities, collaboration, and teacher control were all predictors of teacher satisfaction. Klassen and Chiu (2010) identified that when teachers possessed classroom management skills along with a repertoire of instructional strategies, teachers

were found to be satisfied. The provided induction program incorporated all of these components.

**Community of Inquiry**

Throughout the pilot study, a community of inquiry was leveraged to involve participants in the process of inquiry into the problematic situation of providing novice teachers supports to improve their instructional knowledge, skills, and practice. The inquiry demonstrated the inter-connectedness of the members of the school community and their impact on novice teachers' instructional knowledge, skills, practice, and satisfaction within the job of teaching. Through sustained communication, the community of inquiry approach led participants to question, reason, connect, discuss, and problem-solve. Baker (2010) found that open group discussion times for problem-solving ranked the highest as a best practice. This occurred throughout induction activities as participants drew relationships between teaching practices, encountered situations, induction activity experiences, and achieved through the various group discussions with principals, central administrators, mentors, and colleagues. The induction learning experiences were differentiated to individual needs and personalized where the teacher had choice in engaging in or not engaging in certain induction components. Since the participant group had been comprised of individuals in their first four years of teaching in the district, the reflection covered the four-year time span of experiences. The participants provided first-hand insights and constructed meaning through sustained communication into how differentiated induction activities influenced their instructional practices and resulted in satisfaction with their teaching environment and experience.

**Pre-Service Teachers**

Centerville's novice teachers came to the classroom with limited real-world teaching knowledge, skills, and experiences. The multi-faceted induction system assisted teachers in bridging the gap between pre-service teaching preparation and the realities of being responsible for effectively taking on the tasks of leading instructional practices within the classroom. The varied activities provided supports in self-identified areas of needed growth and in areas identified by colleagues, mentors, and administrators. As the professional needs of new teachers were met, a high level of satisfaction in the working environment and profession was experienced as evident through the survey and interview data, which findings from other studies indicate will likely result in a continuation of employment (Johnson & Birkeland, 2003). Furthermore, the decrease in mobility of new teaching staff will result in a growing understanding of instructional practices and a stability of the district's teaching team. An expected outcome of these improvements will result in a positive impact on student, building, and district performance (Guin, 2004).

**Mentoring**

Mentoring support was achieved through a formalized approach, which surpassed the state mentoring guidelines by creating a system of accountability that ensured mentors and mentees met on a consistent basis. The approach incorporated group mentor-mentee discussion group meetings where first year teachers were able to question, reason, connect, discuss, and problem-solve areas of concern or interest, which further enhanced a culture of collaboration and inquiry. The role of the mentor needs to be focused on working with novice teachers in conducting observations, analyzing

observation data, and using the information to alter instruction by providing instructional support through a positively experienced professional growth opportunity.

Through surveys and interviews, mentoring was rated as a beneficial activity with many participants stating that the mentor-mentee relationship continued even after the official mentoring period had expired. On the benefit surveys submitted by the participants, mentoring was rated at 3.06 and Buddy Teacher was rated as 3.12, which were both above the "Beneficial" rating.

Furthermore, self-extended mentoring and inclusion of buddy teachers resulted in a model that extended mentoring beyond the first year of teaching, which Feinman-Nemser (1996) found to be linked to a vision of good teaching and creation of a culture of collaboration and inquiry. The willingness of novice and more experienced teachers to continue to work together in addressing teacher needs is evidence of colleagues working together for the common goal of improving teacher practices (Bartlett & Johnson, 2010).

**Professional Growth**

The cornerstone of any teacher's development is through professional growth, which occurs as a result of purposeful supports provided based on identified needs. Berhrstock-Sherratt et al. (2014) survey of the National Teachers of the Year identified the most important experiences and supports of professional growth included access to a mentor, collaboration with colleagues, common planning time, professional learning communities, self-developed professional growth plans, self-reflection opportunities, access to a supportive principal, and placement that aligned to talent and certification of the teacher. Centerville's multi-faceted induction activities were self-selected by the novice teacher and suggested by colleagues, mentors, and administrators with the intent

of assisting the teacher to grow in identified areas to improve their instructional knowledge, skills, and experiences.

Professional growth occurred as a result of a collaborative effort of various members of the school educational community. The participant interviews revealed that novice teachers worked with grade level and subject area colleagues, officially assigned mentors, unofficial buddy teachers, and administrators, as well as, accessed the archive of best practices videos and attended out-of-district professional development opportunities in order to further develop themselves professionally. At the core of each of these experiences were opportunities for reflection either purposefully included and/or occurring as a result of the nature of the novice teacher to be self-reflective. As part of the administrative meetings, fourth-year teachers had to create a tenure presentation, which served as a tool for reflection. Teachers that had undergone the creation of the presentation stated, "It was stressful creating the presentation and knowing you were going to have to present to the administrators, but I was really surprised at how much I had grown over the years. I was glad I was required to do it."

In all three of Centerville's schools, the participating study teachers expressed the approachability and helpfulness of the principals and administrators. Study participants stated, "My principal is very open to me popping in to talk about my struggles and successes. He and I talk about available opportunities that I could use to become a better teacher." The principal and administrative supports were the two highest rated activities in the benefit survey. In the interviews, the principals shared, "As the principal, I learn through my conversations with my staff. I don't know everything. I am amazed at the

knowledge and skills each of these individuals have and their quest to continue their own learning. They inspire me!"

The novice teachers self-developed professional growth plans after each observation, walkthrough, and evaluation. As a result of the feedback provided through each assessment, the teacher and administrator discussed the lessons and instructional practices evident in the classroom setting and collaboratively reviewed activities that could bring about improvements. The teachers decided on the path they desired to follow. In the summative evaluation meetings, teachers explained how they created their professional growth plan for the next year and shared it with their principal. Each of these approaches empowered the teacher with the choices of how they could grow as a professional while providing them the necessary support to make the plan attainable.

Two areas that still are still in need of improvement in Centerville Public Schools are common planning time and professional learning communities. Due to scheduling constraints, these two interconnected areas experienced the most inconsistency in application across the district. The lack of common planning time negatively impacted the ability of teachers to collaborate both informally throughout the school day and during formal professional learning communities. The inconsistency led to an imbalance of support across the district in these areas. As a result, the benefit rating for PLCs was at the lowest of all of the induction activities (2.59). Although this rating is above the "Somewhat Beneficial" rating, it does fall below the "Beneficial" rating.

As a community of inquiry, this will be an area that will need to be looked at more closely in order to formulate a solution so a positive impact can be achieved. District members need to leverage time and technology to create professional learning

communities that are not constrained by the allocated PLC time. By doing so, created professional collaboration opportunities can be leveraged to benefit students.

**Teacher Attrition**

The four themes that contribute to teacher attrition identified by Billingslevy (2004) include teacher characteristics and personal factors, teacher qualifications, work environments, and teacher reactions to work. The qualifications of teachers for a position were not only be based on their certification, but were inclusive of their pre-service preparation, life experiences, and identification of needs and providing of supports while in the teaching position. The multi-faceted individualized instruction activities provided by Centerville Public Schools focused on individual teacher needs. By doing so, the personal factors were able to be addressed and the work environment became one of collaboration and support as evidenced by the benefit survey ratings and identified interview theme of support. The highest number of codes were in the support theme, with the codes numbering 277 with associated codes including collaboration, cooperation, team, mentor, and buddy. The two highest rated areas of benefit were Principal Support (3.88) and Administrative Support (3.65). Each of these two areas were significantly above the "Beneficial" rating and were slightly below the "Very Beneficial" rating. A review of the regression analysis of the JDI/JIG to principal support and JDI/JIG to administrative support reveal a strong correlation and relatively strong correlation of the activity to job satisfaction, which are ways to gauge participants' reaction to work. Combined, these data sources indicate that the multi-faceted induction activities have the ability to impact novice teachers in areas identified by Billingslevy (2004) as contributing to teacher attrition.

Schools could create a supportive work environment by providing teacher needed supports in instruction, student-interaction, and classroom management, while increasing knowledge pertaining to effective instructional practices. As a result, teachers were better prepared and qualified to teach, which resulted in higher satisfaction levels. Such preparation requires districts to provide ample training in identified areas of need through an induction system that offers a multitude of activities to address the varied needs of novice teachers.

## Limitations of the Study

The pilot study is limited due to the small study size used in comparison to the number of teachers nationwide in their first to fourth year of teaching. A larger size would bring in a broader diversity in teacher experiences and include teachers in each grade level from preschool to 12th grade. In order to expand the sample size, districts with similar offerings would need to be identified and included in the study, which may not be possible due to the unique nature of the induction activities provided. Additionally, the study is situated in a suburban area, not rural, or urban. The findings could differ in these other settings due to distinctive needs and encountered situations in the classrooms of these alternate settings. A final limitation is the pre-service knowledge and skills of participating teachers in the study may be different than those possessed by novice teachers in other settings. Due to the varied teacher preparation experiences, the knowledge, skills, and needs may differ than the study group. As a result, the findings may differ.

An assumption that may be present in the study is that all districts have a similar number of administrators, mentors, and colleagues available to provide some of the

induction activities or that all administrators approach the responsibility of providing induction to the school and district in the same manner. In some school and district settings, the personnel available may be limited or more extensive. The school and district size may also impact other settings in being able to provide in-district professional development. Teacher contracts differ from district to district and state to state, which may negatively impact the ability of a school or district to utilize staff members for professional development, lesson recording, and collaboration. Finally, the technological skills and resources may be limited in other settings that would limit a school or district's ability to record and offer an archive of best practice videos.

An existing bias is that all schools and districts have a teach force that is willing to provide support to their novice colleagues. Additionally, a bias exists that master teachers are present in every school and in every type of district.

**Recommendations**

Schools and districts can improve the work environment by providing teachers needed supports in instruction, student-interaction, and classroom management, while increasing knowledge pertaining to effective instructional practices. By doing so, teachers will be better prepared and qualified to teach, which will result in higher satisfaction levels and positively influence teacher attrition rates. Such preparation requires districts to ensure they are providing ample training in targeted identified areas of need, particularly through an induction system that delivers support and empowerment of teachers.

The outcome from the research was shared with the participants and administrators in the district. The sharing was accompanied by discussions regarding the

findings and how the information could be used to improve induction activities for new teachers in the district. A continuation of monitoring of attrition rates, satisfaction levels, induction activity benefits, and assessment of existing and needed induction activities will be conducted on an ongoing basis to ensure continual improvement.

On a local level, an immediate follow up to the study within Centerville Public School District would be to implement the suggested new induction activities and monitor their effectiveness in providing benefits to instructional practices, knowledge, and skills. A suggested list of additional induction activities was developed from the Proposed Induction Activities Survey (Appendix E) results provided to study participants. The highest rated benefit was to have a mentor formally assigned from the same grade level/subject area. The next highest rated new induction activity was to have practical, relevant, hands-on learning experiences instead of reading articles for the monthly administrator meetings with first to fourth year teachers. The third addition would be to have the fifth year teachers meet with the first to fourth year teachers to discuss and present their tenure presentations, which is a requirement of the fourth year teachers. The final suggested addition was to have a board created where novice teachers could post areas of interest where they would like to observe. Other teachers implementing the desired practice in the building or district could extend an invitation for them to observe the area of interest being implemented in their classroom.

For Centerville, interview data revealed that teachers felt inadequate and unprepared in meeting the needs of English Language Learners (ELL) and students with behavioral needs. Since Centerville is experiencing an increase in ELL students and students with behavioral needs, an inclusion of training and resources in these areas

within the induction experience is warranted since such training is not part of most pre-service programs and is not currently purposefully part of the existing induction program.

Furthermore, when new induction activities are added to existing activities, a survey should be conducted to measure their combined impact on job satisfaction and retention of teachers in their first to fourth year of teaching. Lastly, a longitudinal study of the lasting benefits of the provided induction activities should be conducted to determine if there are long-term benefits from the provided induction activities and if the practices of collaboration, professional development, mentoring, and reflection are internalized by recipients and utilized throughout their careers.

As an extension of the pilot study, more extensive research should be conducted on the impact of the frequency of provided induction activities on performance and job satisfaction. The rationale would be that additional improvements to a multi-faceted induction program could be enhanced by increasing the occurrence of experiences with specific induction activities based on identified needs.

An additional study extension could be conducted to determine which instructional areas are most impacted by each induction activity. By knowing this information, an induction program can ensure the novice teachers struggling in specific areas are targeted to receive additional supports that have been proven to yield positive outcomes in those areas of need.

On the policy level, the findings should be used to inform current induction practices in the state of New Jersey. Although mentoring requirements have been extended from one to two years, a single induction activity program will not yield the same correlations to job satisfaction and benefit than a system that includes a multitude of

induction activities differentiated to each teacher's identified needs. Policies could be rewritten to require school districts to develop and provide more extensive induction programs and extend those offerings over the first four years of teaching until tenure is achieved.

Leadership had a significant impact on novice teachers' growth in knowledge, skills, practice, and satisfaction levels. Principal and administrative support yielded the two highest benefit ratings out of all the 16 provided induction activities. Building and district leadership should use the findings from the study to inform them of the impact and influence leadership has on the job satisfaction of novice teachers. Furthermore, the supports that leadership provide to individuals going through an induction process in a school and district are beneficial at levels that may not have previously been realized by leadership prior to the publication of the study's findings. The new understanding should be leveraged to further support the teaching force new to the profession.

**Future Studies**

Since the pilot study did not include new teachers from every grade level and subject area at each of the four years of experience, a future study should be conducted with participant representatives from each grade level, subject area, and year of experience during the first four years of teaching. A more representative sample of this size and configuration would yield results that would be more readily applicable to novice teachers across the nation. Furthermore, since new teacher induction opportunities and needs vary from district to district and are affected by district location, socio-economic environment, and available resources future studies should be conducted of the same design in each of these areas, as well.

## Implications

Teachers entering the profession are under the impression that they will be adequately supported in their beginning years in a manner that would further build upon the knowledge and skills they acquired during their pre-service training. Novice teachers expect guidance from colleagues and administrators and want to develop in order to be able to meet the individual needs of their students. Teachers new to the profession would expect to be treated as they treat their students, which is to have supports differentiated to meet their individual needs. However, the current system of a singular or severely limited induction support system primarily provided through mentoring is not addressing the vast needs of teachers in their first to fourth year of teaching.

A system that provides a multitude of individualized induction activities positively impacts instructional knowledge, skills, instructional practices, job comfort, job fulfillment, and job satisfaction, which results in improved retention rates for teachers in their first four years of teaching. The induction program's success could be used as a model for other schools to emulate. For Centerville, it provided the district an opportunity to evaluate the existing induction practices, infuse new supports based on teacher feedback, and look at new suggestions to be implemented for the coming year.

A highly supported and informed teaching staff will help each member grow in confidence and experiences and give the novice teachers support in their selected career choice. The systematic process will meet the personal and professional needs of teachers new to the profession.

As the newly appointed superintendent of Centerville Public School District, the researcher has a vested interest in the continued success of its novice teachers so that

students are provided instruction by highly qualified professionals. Like districts across the nation, Centerville Public School District is beginning to encounter fiscal difficulties. Therefore, it is in the financial interest of the district staff, students, and community to best maximize the financial resources so that funds are not wasted on recurring recruitment and training. In order to ensure the created induction program's continuation, regardless of the district leader in place, policies detailing the program will be created along with an annual cycle of re-evaluating the existing induction activities and exploration of replacement and/or creation of additional activities.

Centerville Public School District has been on the cutting edge in many endeavors it has undertaken. The district already receives attention by New Jersey Department of Education, US Department of Education officials, researchers, teachers, and instructional leaders from across the state who are interested in learning about the implemented initiatives and the outcomes from the actions. The created induction program providing multi-faceted individualized induction activities tailored to individual needs can serve as a model for districts across New Jersey and/or the nation. The soon to be expanded 16 induction activities can provide other school and districts a framework on which to build their own induction program, despite a lack of guidance from the United States or New Jersey Departments of Education. Regardless of school or district, education institutions desire to have a talented workforce that is properly equipped to provide students with the required knowledge and skills so that the institution can ensure students are collage, career, and life ready.

## Conclusion

Teachers are the most important resource that students will come into contact with on a daily basis in schools across the nation. It is in the best interest of students, teachers, administrators, parents, and communities if the school system invests the time and resources into developing teachers into professionals that possess the knowledge and skills to positively impact students through the knowledge and use of best instructional practices. As a result of improving the knowledge and skills of every novice teacher, teacher satisfaction will be improved and by extension teacher retention rates will increase. The investment of time, energy, and resources in the novice teaching staff will result in the dividend of retaining a skilled and knowledgeable staff that will serve as the foundational resource for incoming new staff members in years to come. A supportive approach that utilizes multi-faceted induction activities that are tailored to the individual needs of first to fourth year teachers has yielded positive benefits for the recipients of the induction activities and by extension the students of the district.

## References


Alliance for Excellent Education (2008). *What keeps good teachers in the classroom? Understanding and reducing teacher turnover.* Washington, DC: Alliance for Excellent Education, 8(5).

Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerritt, O. (2002). The concept of action research. *The Learning Organization, 9*(3), 125-131.

American Association of Colleges of Nursing (2009). Nursing faculty shortage fact sheet. Retrieved from www.aacn.nche.edu

Andrews, B.D. & Quinn, R.J. (2005). The effects of mentoring on first-year teachers' perceptions of support received. *Clearing House, 78,* 110-116.

Anthony, G., Haigh, M., & Kane, R. (2011). The power of the "object" to influence teacher induction outcomes. *Teaching and Teacher Education, 27*, 861-870.

Armstrong-Stassen, M. & Stassen, K. (2013). Professional development, target-specific satisfaction, and older nurse retention. *Career Development International, 18*(7), 673-693.

Baker, S.L. (2010). Nurse educator orientation: Professional development that promotes retention. *The Journal of Continuing Education in Nursing, 41*(9), 413-417.

Barnes, G., Crowe, E., & Schaefer, B. (2007). *The cost of teacher turnover in five school districts.* National Commission on Teaching and America's Future (NCTAF).

Bartlett, L. & Johnson, L.S. (2010). The evolution of new teacher induction policy: Support, specificity, and autonomy. *Educational Policy, 24*(6), 847-871.

Behrstock-Sherratt, E., Bassett, K., Olson, D., & Jacques, C. (2014). *From good to great: Exemplary teachers share perspectives on increasing teaching effectiveness across the career continuum.* Center on Great Teachers & Leaders at American Institutes for Research.

Bickmore, D.L. & Bickmore S.T. (2010). A multifaceted approach to teacher retention. *Teaching and Teacher Education, 26,* 1006-1014.

Billingslevy, B.S. (2004). Special education teacher retention and attrition: A critical analysis of the research literature. *The Journal of Special Education, 38*(1), 39-55.

Boyer, L. (2005). Supporting the induction of special educators: Program descriptions of university-school district partnerships. *Teaching Exceptional Children, 37*(3), 44-51.

Bransford, J., Darling-Hammond, L., & National Academy of Education (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* San Francisco, CA: Jossey-Bass.

Brewer, E., & McMahan-Landers, J. (2003). Job satisfaction among industrial and technical teacher educators. *Journal of the Industrial Teacher Education, 40*(2)*, 1*67-189.

Broemmel, A.D., Swaggerty, E.A., & McIntosh, D. (2009). Navigating the waters of teacher induction: One beginning teacher's journey. *The New Educator, 5,* 67-80.

Carver-Thomas, D. & Darling-Hammond, L. (2017). Why black teachers leave and what can be done about it. In A. Farinde-Wu, A. Allen, & Lewis, C.W. (Eds), *Black female teachers: Diversifying the United States' teacher workforce* (pp. 159-184). Bingley, United Kingdom: Emerald Publishing.

Chapman, D.W. & Green, M.S. (1986). Teacher retention: A further examination. *The Journal of Educational Research, 79*(5), 273-279.

Cochran-Smith, M. (2004). Stayers, leavers, lovers, and dreamers: Insights about teacher retention. *Journal of Teacher Education, 55*(5), 387-392.

Corcoran, E. (1981). Transition shock: The beginning teacher's paradox. *Journal of Teacher Education, 32*(3), 19-23.

Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J.W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches.* Los Angeles, CA: Sage.

Creswell, J.W. & Plano Clark, V.L. (2011). D*esigning and conducting mixed methods research.* Thousand Oaks, CA.: Sage Publications

Crossman, A., & Harris, P. (2006). Job satisfaction of secondary school teachers. *Educational Management Administration and Leadership, 34*(1), 29-46.

Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *The Phi Delta Kappan, 78*(3), 193-200.

Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership, 55*(5), 6-11.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives, 8*, 1-44.

Darling-Hammond, L. (2005). Teaching as a profession: Lessons in teacher preparation and professional development. *Phi Delta Kappa, 87*(3), 237-240.

Darling-Hammond, L. (2009). President Obama and education: The possibility for dramatic improvements in teaching and learning. *Harvard Educational Review, 79*(2), 210-223.

Darling-Hammond, L. & Bransford, J. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* San Francisco, CA: Jossey-Bass.

Darling-Hammond, L., Wei, R.C., Andree, A., Richardson, N., & Orphanos, S. (2009). State of the profession. *Journal of Staff Development, 30*(2), 42-44, 46-50, 67.

DeAngelis, K.J., & Presley, J.B. (2011). Toward a more nuanced understanding of new teacher attrition. *Education and Urban Society, 43*(5), 598-626.

Donne, V. & Lin, F. (2013). Special education teacher induction: The wiki way. *The Clearing House, 86*, 43-47.

Evans, L. (1998). *Teacher morale, job satisfaction and motivation*. London: Paul Chapman Publishing Ltd.

Fehr, M. C., & Agnello, M. F. (2012). Engaging in diverse classrooms: Using a diversity awareness survey to measure preservice teachers' preparedness, willingness, and comfort. *Multicultural Education, 19*(2), 34.

Feiman-Nemser, S. (1996). Teacher mentoring: A critical review. *ERIC Digest*, 1-6.

Fink, A. (2013). *How to conduct surveys: A step-by-step guide.* Thousand Oaks, CA: Sage.

Fraenkel, J. R, Wallen, N. E., & Hyun, H. H. (2015). *How to design and evaluate research in education* (9th ed.). New York, NY: McGraw-Hill Education.

Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence and computer conferencing in distance education. *American Journal of Distance Education, 15*(1), 7-23.

Gilbert, L. (2005). What helps beginning teachers? *Educational Leadership, 62,* 36-39.

Gray, L & Taie, S. (2015). *Public school teacher attrition and mobility in the first five years: Results from the first through fifth waves of the 2007-2008 beginning teacher longitudinal study* (NCES 2015-337). National Center for Education Statistics Institute of Education Sciences.

Greenlee, B.J. & Dedeugd, I.S. (2002). From hope to despair: The need for beginning teacher advocacy. *Teacher Development, 6*(1), 63-74.

Grissom, J. (2009). *The role of effective principals in reducing teacher turnover in disadvantaged schools.* Truman Policy Research.

Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record, 113*(11), 2552-2585.

Guin, K. (2004). Chronic teacher turnover in urban elementary schools. *Education Policy Analysis Archives, 12*(42), 1-30.

Hallam, P.R., Chou, P., Hite, J., & Hite, S.J. (2012). Two contrasting models for mentoring as they affect retention of beginning teachers. *NASSP Bulletin, 96*(3), 243-278.

Hammerness, K. & Kapadia Matsko, K. (2012). When context has content: A case study of new teacher induction in the University of Chicago's urban teacher education program. *Urban Education, 48*(4), 557-584.

Hertzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work.* New York: Wiley.

Hien, T.T.T. (2009). Why is action research suitable for education? *VNU Journal of Science, Foreign Languages, 25*, 97-106.

Howe, E.R. (2006). Exemplary teacher induction: An internal review. *Education Philosophy and Theory, 38*(3), 287-297.

Ingersoll, R.M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499-534.

Ingersoll, R.M. (2003). *Who controls teachers' work? Power and accountability in America's schools*. Harvard University Press.

Ingersoll, R.M. (2012). Beginning teacher induction: What the data tell us. *Phi Delta Kappan, 93*(8), 47-51.

Ingersoll, R.M. & Kralik, J. (2004). *The impact of mentoring on teaching: What the research says.* Denver, CO: Education Commission of the States.

Ingersoll, R.M. & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research, 81*(2), 201-233.

Jandoli, M. A. (2013). Goings and comings: Younger teachers join the profession in an era of rapid change. *New Jersey Education Association Review,* 1-8.

Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a "sense of school": New teachers explain their career decisions. *American Educational Research Journal, 40*(3), 581-617.

Kardos, S.M., Johnson, S.M., Peske, H.G., Kauffman, D., & Liu, E. (2002). Counting on colleagues: New teachers encounter the professional cultures of their schools. *Educational Administration Quarterly, 37*, 250-290.

Kelly, L. (2004). Why induction matters. *Journal of Teacher Education, 55*(5), 438-448.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741-756.

Kofi Acree, E., Epps, S.K., Gilmore, Y., & Henriques, C. (2001). Using professional development as a retention tool for underrepresented academic librarians. *Journal of Library Administration, 33*(1), 45-61.

Krathwohl, D. R., & Smith, N. L. (2005). *How to prepare a dissertation proposal: Suggestions for students in education and social and behavioral sciences.* Syracuse, NY: Syracuse University Press.

Marshall, K.J., Karvonen, M., Yell, M.L., Lowrey, A., Drasgow, E., & Seaman, M.A. (2013). Project respect: Toward an evidence-based mentoring model for induction teachers. *Journal of Disability Policy Studies 24*(3), 127-136.

Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative data analysis: A methods Sourcebook.* Thousand Oaks, CA: Sage.

Moir, E. (2009). Accelerating teacher effectiveness: Lessons learned from two decades of new teacher induction. *Phi Delta Kappan, 91*(2), 14-19.

National Commission on Teaching and America's Future (2002). *Unraveling the teacher shortage problem: Teacher retention is key.* Washington, DC: Teacher's Research Institute.

Neuman, Y., Reichel, A., & Saad, I. A. (1988). Organizational climate and work satisfaction: The case of Beduin elementary schools in Israel. *Journal of Educational Administration, 26,* 82-96.

New Jersey Department of Education (2015). *GPA requirements for New Jersey teacher candidates.* Retrieved from http://www.state.nj.us/education/educators/rpr/preparation/PreparationGPAPolicyInfoSheet.pdf

Nir, A. E. & Bolger, R. (2008). The antecedents of teacher satisfaction with professional development programs. *Teaching and Teacher Education, 24*(2), 377-386.

Olsen, B. & Anderson, L. (2007). Courses of action: A qualitative investigation into urban teacher retention and career development. *Urban Education, 42*(1), 5-29.

Ornstein, A., & Hunkins, F. (2009). *Curriculum: Foundations, principals, and issues*. Boston, MA: Allyn & Bacon.

Porter, S. (2007). Stress in schools: Seeking solutions. *Independent School, 67*(1), 50-59.

Renzulli, L. A., Macpherson Parrott, H., & Beattie, I. R. (2011). Racial mismatch and school type: Teacher satisfaction and retention in charter and traditional public schools. *Sociology of Education, 84*(1), 23-48.

Rhodes, C., Nevill, A., & Allen, J. (2004). Valuing and supporting teachers: A survey of teacher satisfaction, dissatisfaction, morale and retention in an English local education authority. *Research in Education, 71*(1), 67-80.

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica, 73*(2), 417-458.

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal, 50*(1), 4-36.

Rossman, G. B., & Rallis, S. F. (2012). *Learning in the field: An introduction to qualitative research.* Los Angeles, CA: Sage.

Roth, W., McGinn, M. K., & Bowen, G. M. (1998). How prepared are preservice teachers to teach scientific inquiry? Levels of performance in scientific representation practices. *Journal of Science Teacher Education, 9*(1), 25-48.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data.* Los Angeles, CA: Sage.

Saiti, A., & Papadopoulas, Y. (2015). School teachers' job satisfaction and personal characteristics. *International Journal of Educational Management, 29*(1), 73-97.

Saldana, J. (2013). *The coding manual for qualitative research.* Thousand Oaks, CA: Sage.

Sanders, W. L., Wright, S. P., & Horn, S. P. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel evaluation in Education, 11*(1), 57-67.

Scherff, L. (2008). Disavowed: The stories of two novice teachers. *Teaching and Teacher Education, 24*(50), 1317-1332.

Schön, D.A. (1983). *The reflective practitioner: How professionals think in action.* New York: Basic Books.

Shen, J. (1997). Teacher retention and attrition in public schools: Evidence from SASS91. *The Journal of Educational Research, 91*(2), 81-88.

Simon, N. S. & Moore Johnson, S. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record, 117*(3), 1-36.

Smith, T. & Ingersoll, R. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*, 681-714.

State of New Jersey Department of Education (2014). Professional development in New Jersey: Education mentoring and induction support. Retrieved from http://www.nj.gov/education/profdev/mentor/

Stearns, E., Banerjee, N., Moller, S., & Mickelson, R. A. (2015). Collective pedagogical teacher culture and teacher satisfaction. *Teachers College Record, 117*, 1-32.

Stringer, E.T. (2014). *Action Research*. Thousand Oaks, CA: Sage.

Tamir, E. (2013). What keeps teachers in and what drives them out: How urban public, urban catholic, and jewish day schools affect beginning teachers' careers. *Teachers College Record, 115* (6)*,* 1-36.

Taylor, F. (1911). *Principals of scientific management.* New York: Harper Brothers.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, CA: Sage Publications, Inc.

Tournaki, E., Lyublinskaya, I., & Carolan, B. (2011). An ongoing professional development program and its impact on teacher effectiveness. *The Teacher Educator, 46*(4), 299-315.

Tye, B. B., & O'Brien, L. (2002). Why are experienced teachers leaving the profession? *Phi Delta Kappan, 84*(1), 24.

Wang, J., & Fulton, L. A. (2012). Mentor-novice relationships and learning to teach in teacher induction: A critical review of research. *REMIE Multidisciplinary Journal of Educational Research, 2*(1), 56-104.

Washburn, E. K., Joshi, R. M., & Cantrell, E. B. (2011). Are preservice teachers prepared to teach struggling readers? *Annals of Dyslexia, 61*(1), 21-43.

Wong, H., & Wong, R. (2001). What successful new teachers are taught. *Teachers Net Gazette, 2*(3), 1-11.

## Appendix A

## The Job Descriptive Index Including The Job in General Scale Survey

**People on Your Present Job**

Think of the majority of people with whom you work or meet in connection with your work. How well does each of the following words or phrases describe these people? In the blank beside each word or phrase below, write

Y for "Yes" if it describes the people with whom you work
N for "No" if it does not describe them
? for "?" if you cannot decide

__ Stimulating
__ Boring
__ Slow
__ Helpful
__ Stupid
__ Responsible
__ Likeable
__ Intelligent
__ Easy to make enemies
__ Rude
__ Smart
__ Lazy
__ Unpleasant
__ Supportive
__ Active
__ Narrow interests
__ Frustrating
__ Stubborn



**Job in General**

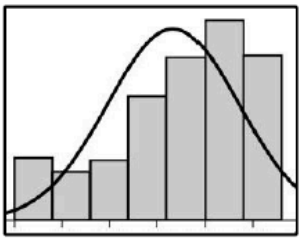
Think of your job in general. All in all, what is it like most of the time? In the blank beside each word or phrase below, write

Y for "Yes" if it describes your job
N for "No" if it does not describe it
? for "?" if you cannot decide

__ Pleasant
__ Bad
__ Great
__ Waste of time
__ Good
__ Undesirable
__ Worthwhile
__ Worse than most
__ Acceptable
__ Superior
__ Better than most
__ Disagreeable
__ Makes me content
__ Inadequate
__ Excellent
__ Rotten
__ Enjoyable
__ Poor



# THE JOB DESCRIPTIVE INDEX



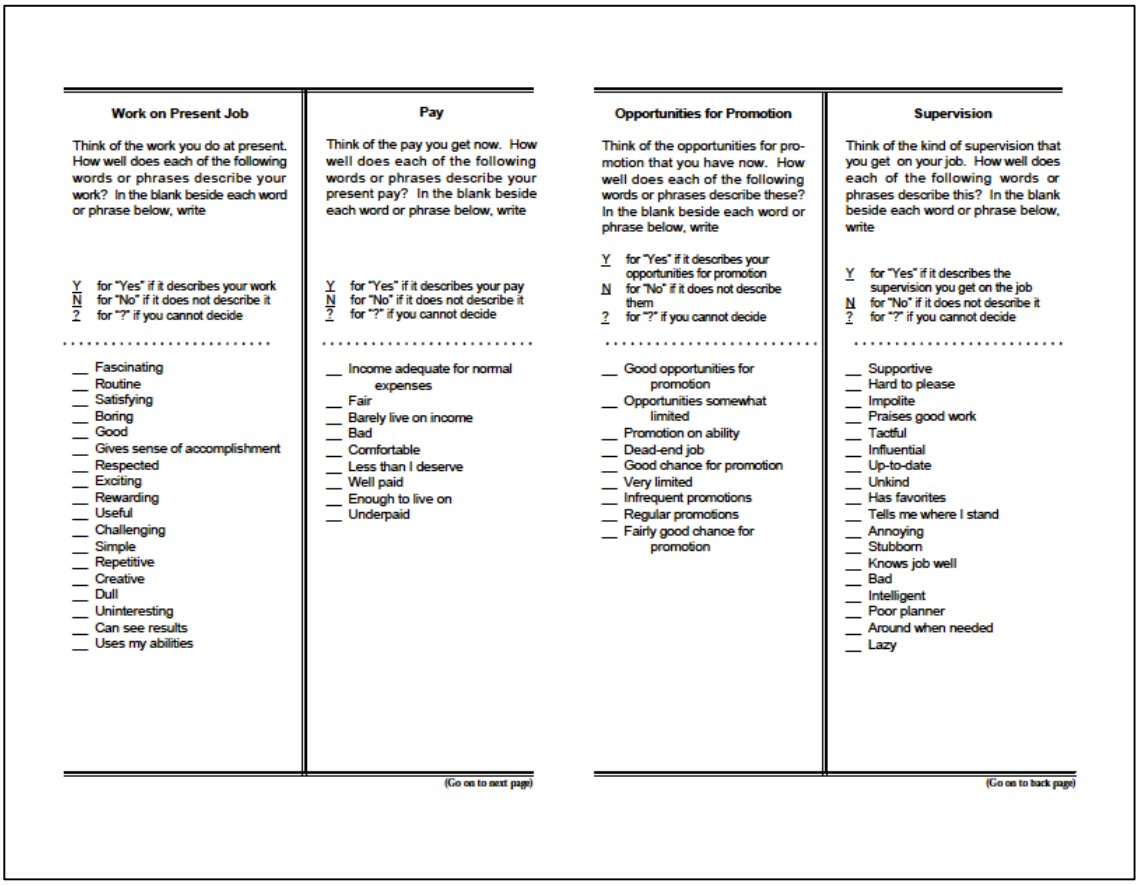
2009 Revision

*including*

**The Job in General Scale**

BGSU®

Bowling Green State University



**Work on Present Job**

Think of the work you do at present. How well does each of the following words or phrases describe your work? In the blank beside each word or phrase below, write

Y for "Yes" if it describes your work
N for "No" if it does not describe it
? for "?" if you cannot decide

- ___ Fascinating
- ___ Routine
- ___ Satisfying
- ___ Boring
- ___ Good
- ___ Gives sense of accomplishment
- ___ Respected
- ___ Exciting
- ___ Rewarding
- ___ Useful
- ___ Challenging
- ___ Simple
- ___ Repetitive
- ___ Creative
- ___ Dull
- ___ Uninteresting
- ___ Can see results
- ___ Uses my abilities

**Pay**

Think of the pay you get now. How well does each of the following words or phrases describe your present pay? In the blank beside each word or phrase below, write

Y for "Yes" if it describes your pay
N for "No" if it does not describe it
? for "?" if you cannot decide

- ___ Income adequate for normal expenses
- ___ Fair
- ___ Barely live on income
- ___ Bad
- ___ Comfortable
- ___ Less than I deserve
- ___ Well paid
- ___ Enough to live on
- ___ Underpaid

(Go on to next page)

**Opportunities for Promotion**

Think of the opportunities for promotion that you have now. How well does each of the following words or phrases describe these? In the blank beside each word or phrase below, write

Y for "Yes" if it describes your opportunities for promotion
N for "No" if it does not describe them
? for "?" if you cannot decide

- ___ Good opportunities for promotion
- ___ Opportunities somewhat limited
- ___ Promotion on ability
- ___ Dead-end job
- ___ Good chance for promotion
- ___ Very limited
- ___ Infrequent promotions
- ___ Regular promotions
- ___ Fairly good chance for promotion

**Supervision**

Think of the kind of supervision that you get on your job. How well does each of the following words or phrases describe this? In the blank beside each word or phrase below, write

Y for "Yes" if it describes the supervision you get on the job
N for "No" if it does not describe it
? for "?" if you cannot decide

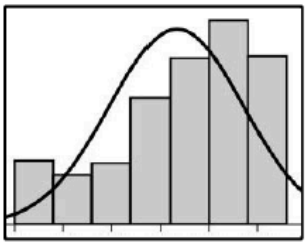
- ___ Supportive
- ___ Hard to please
- ___ Impolite
- ___ Praises good work
- ___ Tactful
- ___ Influential
- ___ Up-to-date
- ___ Unkind
- ___ Has favorites
- ___ Tells me where I stand
- ___ Annoying
- ___ Stubborn
- ___ Knows job well
- ___ Bad
- ___ Intelligent
- ___ Poor planner
- ___ Around when needed
- ___ Lazy

(Go on to back page)

## Appendix B

## Stress in General Scale Survey

# STRESS IN GENERAL SCALE



2009 Revision

BGSU®

Bowling Green State University

**Your Stress at Work**

Do you find your job stressful? For each of the following words or phrases below write:

Y for "Yes" if it describes your job
N for "No" if it does not describe your job
? for "?" if you cannot decide

. . . . . .

__ Demanding

__ Pressured

__ Calm

__ Many things stressful

__ Hassled

__ Nerve-racking

__ More stressful than I'd like

__ Overwhelming

## Appendix C

## Induction Benefit Survey

Survey Questions – New Teacher Participants:

Definition: Induction - A process of introducing an individual into their new position through supports.

Years Teaching in the District:
Grade Level/Subject Area:

The following survey will use a four (4) point scale and N/A in identifying the level of benefit experienced with each provided induction activity:

- (1) Not Beneficial
- (2) Somewhat Beneficial
- (3) Beneficial
- (4) Very Beneficial
- N/A – Not Applicable

Please review each induction activity in the list below and using the four (4) point scale to rate each item.

____ Welcome orientation
____ Buddy teacher
____ Mentor
____ Observation of colleagues (modeling lessons/instructional practices)
____ Observed by mentors/colleagues
____ Professional development in-district
____ Professional development out-of-district
____ PLC's
____ Formal observations/evaluations/walkthroughs
____ Central administrator new teacher meetings
____ Principal new teacher meetings
____ Video archive of best practices and resources
____ Collaboration with new teachers during open discussion meetings
____ Collaboration with mentors during open discussion meetings
____ Administrative support
____ Principal support

## Appendix D

## Interview Questions

Interview Questions – New Teacher Participants:

Induction in a school environment - A process of introducing an individual into their new position.

Years Teaching in the District:
Grade Level/Subject Area

1. What pre-service teaching experiences have been beneficial in preparing you to teach?
2. What specific areas of teaching would you identify as strengths for you?
3. What specific areas of teaching would you identify as areas in which you need to grow?
4. Which areas of strength have been identified in formal observations and walkthroughs?
5. Which areas of concern have been identified in formal observations and walkthroughs?
6. How was it determined which induction activities you would receive?
7. What opportunities have been provided to you for peer collaboration?
8. How has your mentor assisted you in growing as a teaching professional?
9. Can you describe your experiences with the archive of "Best Practices" videos?
10. Can you describe your experiences with the principal held "New Teacher" meetings?
11. Can you describe your experiences with the district held "New Teacher" meetings?
12. What workshop experiences have been offered to you?
13. What workshop experiences have you participated in?
14. Can you describe the experiences you have had with peer-to-peer observations?
15. Can you identify and describe any induction activities that have not been already talked about that you have participated in during your time teaching in Centerville?
16. How have the induction activities helped or not helped you in improving as a teacher?
17. How would you describe your overall induction experience in Centerville?
18. In what ways could the induction experience be improved?

Interview Questions – Mentors and Principals:

Years Teaching/Leading in the District:
Grade Level/Subject Area (if applicable)

1. What preservice teaching experiences have been beneficial in preparing (new teachers/your mentee) to teach?
2. What specific areas of teaching would you identify as strengths for (new teachers/your mentee)?
3. What specific areas of teaching would you identify as areas needed for (new teachers/your mentee) to grow?
4. How was it determined which induction activities (new teachers/your mentee) would receive?
5. What opportunities have been provided to (new teachers/your mentee) for peer collaboration?
6. How have you as the (principal/mentor) assisted the (new teacher/mentee) to grow as a teaching professional?
7. Can you describe the experiences your (new teachers/mentee) have had with the archive of "Best Practices" videos?
8. Can you describe your perceptions of the experiences the (new teachers/mentee) have had during the principal held "New Teacher" meetings?
9. Can you describe your perceptions of the experiences the (new teachers/mentee) have had with the district held "New Teacher" meetings?
10. What workshop experiences have been offered to (new teachers/your mentee)?
11. What workshop experiences have (new teachers/your mentee) participated in?
12. Can you describe the experiences (new teachers/your mentee) have had with peer-to-peer observations?
13. Can you identify and describe any induction activities that have not been already talked about that (new teachers/your mentee) have participated in during their time teaching in Centerville?
14. How would you describe (new teacher's/your mentee's) overall induction experience in Centerville?
15. In what ways could the induction experience be improved?

## Appendix E

### Proposed Induction Activities Survey

Through the interviews, a number of suggestions were provided to improve in the induction program in Somerville. In reflection on your own experience and the potential experiences by new teachers that will be hired for next year and beyond, please rate the following questions on the level of benefit you would expect to be received from the proposed additions/modifications to the induction program.

Start each question with..."HOW BENEFICIAL WOULD IT BE..."

The rating for each question are:

(1) Not Beneficial
(2) Somewhat beneficial
(3) Beneficial
(4) Very Beneficial

1. To have a "Buddy" teacher formally assigned in year two after having a mentor for the first year?
2. To have a "Mentor" teacher formally assigned in your same grade level/subject area?
3. To have a "Mentor" and "Buddy" teacher formally assigned?
4. To have colleagues observe you and provide feedback?
5. To expand the best practice video archive to target your specific grade level/subject area?
6. To have one-on-one principal meetings?
7. To have principal meetings that separately met with 1st and 2nd year teachers as one group and 3rd and 4th grade teachers as a different group?
8. To have a combination of one-on-one and 1st through 4th year principal meetings?
9. To have 5th year teachers talk about and share tenure presentations with 1st through 4th year teachers?
10. To record and critique your own lesson once per year?
11. To have observers include reference resources and links to best practice videos in observations/walkthroughs?
12. To be provided updates on videos added to the best practice video archive?
13. To be provided articles ahead of time for administrator non-tenured meetings?
14. To have practical/relevant/hands-on learning experiences instead of reading articles for administrator non-tenured meetings?
15. To have 1st through 4th year non-tenured meetings once a year facilitated by teacher leaders without administrators present?
16. To survey newly hired teachers to learn about their teaching style and personality and use the information to assist with assigning a mentor?

17. To have a "Board" where teachers could post invites to other teachers to come see something they are doing in their classroom?
18. To have a "Board" where teachers could post areas of interest they would like to observe so that other teachers can extend an invitation to come see the area of interest being implemented?