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The Effects of New Teacher Induction Programs on New Teacher Retention in Urban School Districts

Lisa Maria Smith-Sherrod

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The Effects of New Teacher Induction Programs on New Teacher Retention in Urban
School Districts

by
Lisa M. Smith-Sherrod

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
and School of Criminal Justice in Partial
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Approval Page

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Statement of Original Work

I declare the following:

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Lisa M. Smith-Sherrod
Name

March 2, 2021
Date

Acknowledgment

This dissertation is dedicated to my mother. She was the first person to read this work when it was just a Concept Paper in 2015. She lost her battle with cancer in 2016, but left me with these words, as well as many cherished memories:

“A loss of a mother can never be replaced, but the love of a mother can never be lost.” Setenia P. Smith, 1939 – 2016

Abstract

The Effects of New Teacher Induction Programs on New Teacher Retention in Urban School Districts. Lisa M. Smith-Sherrod, 2021: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education and School of Criminal Justice. Keywords: teacher effectiveness, teacher induction, teacher retention, teacher education, teacher preparation, teacher attrition, new teachers, mentor, principal

This applied dissertation was designed to determine the effect of new teacher inductions programs on new teacher retention in urban school districts. Teachers are leaving urban school districts at alarming rates. The expectation that every student will receive a quality educational experience is becoming increasingly less common for the neediest students, who are often minorities in rural or urban settings, or who have special needs (Snodgrass, 2018). Urban school districts and institutions of higher education need to determine strategies that will retain highly effective educators in the field. This applied dissertation was designed to provide insight into how to improve new teacher induction in urban school districts.

The researcher administered a 4-part 30-item survey to gather necessary data to determine the impact of the components of a new teacher induction program. The researcher used the program objectives of the district's new teacher induction program to align themes. Survey statements were organized around the three goals of the New Teacher Induction Program: teacher effectiveness, student achievement, and teacher retention. Each part of the survey related to the layered support new teachers receive while participating in the school district's new teacher induction program: New Teacher Institute, Mentor Support, Principal Support and Teacher Retention. Survey results were tallied, analyzed, and reported.

The effects of each section were quantified and compared. The results of the analysis indicated that the Principal section of the New Teacher survey had the largest effect on teacher retention. Informed by the Activity Theory as the framework, the role of principal in the experiences of new teachers can be conceptualized as influential because of the value system and social practices that are attached to principals as sources of learning.

Based on the results of the statistical analysis, scores in all three sections of the survey instrument were correlated with high teacher retention (i.e., higher scores in a section corresponded with higher probability that a teacher would stay the following year). Data were limited and the parameter estimates for each section were not significant at a 0.05 level. Nonetheless, the effects of each section were still quantified and compared and the data showed that the Principal section had the largest effect on teacher retention even though this effect was not statistically significant.

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Chapter 1: Introduction

The transformative power of an effective teacher can transcend the limitations and obstacles that students enter the classroom with daily. Those exceptional teachers make school an interesting and exciting place. They have a passion for learning that enables them to meet the needs of their students in a way that is life changing. Exceptional teachers inspire their students to take risks, dig deeper, assume more challenging work, and ultimately have an impact in society (Solheim et al, 2018).

If teacher candidates are not prepared and recruited by school districts that are equipped to handle the demands of 21st century schools, there will not be qualified educators in our nation's classrooms (Darling-Hammond et al., 2019). In a survey of 3,377,900 teachers conducted by the National Center for Education Statistics (2014), it was found that for the school year 2011-2012, 84% of the teachers did not transfer to another school; 8% transferred to a different school; and, 8% were no longer teaching in the year that followed. In terms of teachers in public schools with 1-3 years of experience, the findings were less favorable: 80% remained in their school; 13% transferred to a different school; and, 7% left the profession in school year 2012-2013. With regards to the teachers who transferred to another school between the school years of 2011-2012 and 2012-2013, 59% transferred from one public school to another public school located in the same district, 38% transferred to another public school located in another district, and 3% transferred to a private school. Thirty percent of public-school teachers who moved voluntarily transferred to another school in the school year 2012–2013. Ten percent of public-school teacher involuntarily left the profession in school year 2012–2013. Of the teachers working in public schools who left the profession in school

year 2012–2013, 8% worked in fields outside of education, comprising military service. Furthermore, 53% of the public-school teachers who shifted to another type of work and left the teaching profession all together reported that the general environment of their current work was better than in public school teaching. Fifty-one percent of those who left the public-school teaching profession in school year 2012-2013 reported that their current workload was more manageable than in public school teaching.

Based on a study by O’Connell and Kung (2007), approximately 30% of employee’s salary is lost to employers by attrition. This means that teacher attrition costs the nation \$4.9 billion annually. The alarming financial costs are not the only issue, and student achievement is also greatly impacted. As explained by Alliance for Excellent Education President Bob Wise, “When a teacher leaves after a few years, it is not only a waste of talent, time, and money. There are also wasted learning opportunities for children” (Dillon, 2009, p. 28). Meeting and exceeding performance-related standards will take 3 to 7 years for new teachers. In Dillon’s opinion, it is rare for students to gain the advantage of having an experienced teacher.

Background and Justification

The school district where the research was conducted is an urban district with approximately 81,000 students. The student demographics are as follows: 80% African American, 10% Hispanic/Latino, 8% White, and 2% other. In addition, 55% of students are low income, 14% are students with disabilities, and 6% are identified as English language learners. Fifty percent of the district’s teachers identify as White, 44% identify as black or African American, 3% report as Hispanic/Latino, 2% report as Asian, and 1% identify as another race. There are 177 schools and programs in the district, including 34

charter schools. As of January 7, 2019, there are 4,902 employees with the classroom teacher title. The district hires an average of 577 new teachers annually. Approximately 10% of the teachers separate from the district each year due to retirement. This study was conducted in order for the target school district to determine the strength of recruitment and retention efforts based on demographic factors such as race, age, and sex.

According to a presentation by the Office of Human Capital to the Board of Commissioners in 2015, the 5-year teacher retention rates of new teachers from school year 2009-10 to school year 2013-14 was 43% in the district in which this study was conducted. “The district strives to transform school culture through a research-based comprehensive teacher development and induction system that values proactive, long-term development, cycles of reflection and co-investigation with outstanding teachers, and classroom-based learning that meets the changing needs of all teachers. New Teacher Induction is a 3-year, comprehensive system of aligned supports and professional learning opportunities designed to improve teacher effectiveness, increase teacher retention, and impact student achievement.” (Office of Human Capital, 2015, p. 10)

Approximately 1,600 teachers in the target district are in their first to third year of teaching. For the unique needs of new teachers and of experienced teachers who are new in a district to be met, specialized support programs are provided for by the Office of Teacher Support and Development. These support programs include site-based mentoring, professional learning, and a new hire summer institute. Although this teacher induction program is in place, the district needs to hire at least one third of the teacher population each year.

The Research Problem

The problem is that the target urban school district wants to determine the components of the new teacher induction program that impact the retention of highly effective teachers. In school year 2013-14, the district adopted a new teacher effectiveness rating system which rates all teachers on a four-point scale: *highly effective* (4), *effective* (3), *developing* (2), and *ineffective* (1). The district has reported that 6.54% ($n=38$) of the teachers were rated highly effective, 41.31% ($n=240$) were rated effective, 37.69% ($n=219$) were rated developing, 6.02% ($n=35$) were rated ineffective, and 8.43% ($n=49$) were not rated. All these teachers were participants of the New Teacher Induction program in the district, and 74% ($n=431$) were retained from the 2013-14 to the 2014-15 school year. Through the ongoing support of the induction program, which includes the new teacher institute, site-based mentoring, and on-going professional development, the district hopes to increase the number of highly effective teachers who remain in the district; currently, the district has to hire an average of 577 new teachers each school year.

Deficiencies in the Evidence

Researchers studying teacher education have largely focused on new teachers leaving the profession. This research has substantially contributed to the understanding of important variables related to teacher retention. Evidence is lacking in the literature, however, regarding which factors contribute to new teachers' success and retention. The empirical research review across designs and disciplines conducted by Cochran-Smith et al. (2010/2011) found a link between one or more formal preparation aspects and licensure.

The findings were sorted into six genres: (a) teacher certification status and its correlates; (b) teachers' educational backgrounds and the teacher workforce; (c) entry pathways into teaching and their consequences; (d) teacher preparation programs and their graduates; (e) teacher preparation and learning to teach in the early career years; and (f) teachers' life histories and their beliefs and practices. (p. 20)

Cochran-Smith et al. (2010/2011) concluded that additional research was needed regarding teacher practice or retention as outcomes of teachers' education.

Audience

The audience for this applied dissertation research study may be administrators in the target organization including central office administrators, principals, assistant principals, mentors, and other staff who work with new teacher support and development.

Definition of Terms

Mentor. Mentors are advisors who are willing to share their knowledge in a supportive manner that takes into consideration the socio-emotional needs of their mentee. Mentors provide encouragement and feedback on performance and push their mentees' thinking. They provide a source of information and act as a role model (Institute of Medicine, National Academy of Sciences, and National Academy of Engineering, 1997)

New Teachers. For this study, new teachers refer to teachers with 1 to 5 years of experience (Lacireno-Paquet et al., 2012).

New Teacher Induction. Induction programs are comprehensive initiations or introductions to a position that provide inexperienced teachers with the necessary models and tools for beginning their teaching careers, as well as specific guidance aimed at helping them meet performance standards. Induction may include mentoring, assistance

in planning, professional development, and evaluation (American Association of State Colleges and Universities, 2007).

Teacher Attrition. For this study, teacher attrition refers to the rate at which a teacher leaves the profession for various reasons including retirement, job satisfaction, and promotion. (Gary & Taie, 2015).

Teacher Effectiveness Evaluation. Teacher effectiveness evaluation is one of the measures of teacher performance within a given school district (Kraft & Gilmour, 2017).

Teacher Preparation. Teacher preparation refers to the preservice course work and practicum experiences, induction activities, and in-service professional development that is provided to those pursuing or already in the teaching profession (U. S. Department of Education, 2016).

Teacher Retention. In the context of the current investigation, teacher retention describes teachers staying in the profession for 5 years or longer (Carver-Thomas & Darling-Hammond, 2017).

Purpose of the Study

The purpose of this quantitative study was to examine the effects of new teacher induction programs on teacher retention of highly effective teachers with a teaching experience in urban school districts for 5 years or less.

Chapter 2: Literature Review

According to previous scholars in the body of related literature, teacher retention continues to be a national dilemma. Researchers have suggested that within the first 5 years of their teaching career, approximately 17-50% of new teachers leave the profession (Cross & Thomas, 2017). Researchers have found that a high rate of teacher turnover negatively affects student achievement in English Language Arts (ELA) and mathematics (Ronfeldt, Loeb, & Wyckoff, 2013). There continues to be a lack of highly qualified and effective teachers teaching in urban schools (Glazerman et al., 2010). According to Donaldson and Johnson (2011), teacher turnover creates instability in classrooms and school communities, increases the cost of educating young people, and negatively impacts teacher quality in schools with the greatest needs.

The researcher conducted the literature review for this chapter using online library databases, peer-reviewed journals, and periodicals. Descriptive key words and phrases used in the search included *teacher retention*, *retention*, *teacher attrition*, *attrition*, *new teacher induction*, *teacher induction*, and *mentoring*. An exhaustive review of the literature using these sources revealed themes that will be discussed in this chapter. The following three themes emerged: (a) teacher preparation, (b) new teacher induction, and (c) teacher retention.

Theoretical Framework

The theory on which the need to reduce teacher attrition is grounded is the Sociocultural Theory. This theory was originally developed by theorists Vygotsky, Leont'ev, and Rubinstein in the 1920s and was primarily used to in interdisciplinary studies, in a range of other fields that includes education, organizational learning, and

cultural studies (Kaptelinin, 2014). This theory examines how social interactions influence our cognitive growth. The Sociocultural theory suggests that learning takes place through interactions within communities. At the heart of the Sociocultural theory is the carrying out of problem-solving action in particular environment the social structures of which were developed through culturally and historically grounded actions (Leont'ev, 1981; Tulviste, 1991). Sociocultural theory has proven useful in gaining an understanding of the process of learning to teach, particularly in illustrating how teachers choose pedagogical tools to inform and conduct their teaching. This framework focuses on the predominant value systems and social practices that characterize the settings in which learning to teach occurs (Grossman, Smagorinsky, & Valencia, 1999).

Actions that school districts undertake through the new teacher induction process, such as, assigning mentors, principal leadership and onboarding activities create opportunities for new teachers to interact within school communities. By interacting in a social environment new learning takes place for novice educators (Kurt, 2020).

Teacher Preparation

Scholars have not generally made a connection between quality teaching in terms of students' learning, teaching practice or teacher performance. Some researchers have indicated a correlation between quality teaching and attrition, indicating that more effective teachers are more likely to remain in the profession (Cochran-Smith et al., 2010/11). Professional development schools have shown some evidence of influencing teacher practice. There is still little agreement about how teachers should be prepared, certified, and licensed. Experts wonder if formally preparing teachers is at all necessary.

Cross and Thomas (2017) examined how to support urban middle level teachers. To address the needs of urban schools as it related to teacher preparation, residency programs are created by school districts and universities. These researchers noticed gaps in the literature and programming around teacher residency programs and implemented a 3-year residency model designed to support and retain highly qualified teachers in urban schools. This program begins in the final year of teacher candidate's certification coursework and continues until his/her second year of teaching and includes programs designed to fill the gaps in typical urban teacher induction programs.

The research suggests the relationship between a high rate of attrition and the limited teaching methods and pedagogy training during the preservice phase. During a study conducted by Ingersoll, Merrill, and May (2014), the authors revealed that preservice teachers are less likely to leave the profession in the first 3 years of teaching if their initial preparation programs required them to practice teach, observe other teachers, and are provided feedback on teaching skills. Other factors that contribute to this turnover include the unavailability of a culture of professional support, challenging working conditions, and a workload that tends to overwhelm. Additionally, a lack of mentorship was cited as another reason why teachers leave the profession (Cross & Thomas, 2017). As student populations become more diverse, support for conversations around race, social identity, and emotional growth of students are critical to the success of teachers.

Collaboration and Reflection to Enhance (CREATE)

School leaders and university partners created a university-school teacher residency program called Collaboration and Reflection to Enhance Atlanta Teacher Effectiveness (CREATE). The goal of this 3-year program the goal is to retain highly qualified teachers

in urban schools. At the center of this program is collaboration which begins in the final year of a teacher's university coursework, continues through the second year of teaching, and comprises other program components aimed at addressing issues on induction programs. The creators of this program have posited that CREATE provides support for residents, veteran educators, and schools. Program features include progressive core classroom roles, which increase responsibilities and independence as teaching abilities improve.

1. Year 1 (preservice): student teacher role, some residents paired;
2. Year 2 (in-service): co-teacher role, paired with other year 2 residents;
3. Year 3 (in-service): lead teacher role.

The program provides additional supports mechanisms and incentivizes participation for each resident.

1. Year 1 (preservice): support of cooperating teachers, support of mentor, support of on-site program director, stipend.
2. Year 2 (in-service): support of co-teacher role, support of mentor, support of on-site director, paid summer internship, and competitive teacher wage.
3. Year 3 (in-service): support of mentor, support of on-site director, and teacher salary, plus stipend.

The program also recognizes learning opportunities for residents and all educators in the school, in order to build a community foundation of collaboration and reflection.

1. Year 1 (preservice): critical friendship partnership and mindfulness training.
2. Year 2 (in-service): critical friendship partnership and mindfulness training.
3. Year 3 (in-service): critical friendship partnership and mindfulness training (p. 4).

As the program expands, the creators intend to include the components of race and justice in middle grades and to reinforce the critical component of how partnerships are conceptualized.

Professional Development School (PDS) Model

Educators in Maryland, including those higher learning institutions, local school districts, and state department of education, partnered to build on the professional development school (PDS) model. Through mentoring, intensive internships, comprehensive professional development programs, this model aims to cause a significant increase in the numbers of highly effective teachers for high-minority and –poverty schools. The end goal of this work was to increase student achievement in urban school populations.

The Maryland State Department of Education (2003) has defined PDS as “collaboratively planned and implemented partnership for the academic and clinical preparation of interns and the continuous professional development of both school system and institution of higher education (IHE) faculty” (p. 1). Even with this initiative, the state of Maryland still faces an issue in terms of high-quality teachers between low-poverty and high-poverty schools. According to teacher evaluation data from 2010, only 5% of teachers in urban schools are considered “highly effective” (Maryland State Department of Education, 2003).

Teacher Identity

Dassa and Derosé’s (2017) study centered on the preservice teachers’ perceptions and their identity. “Teacher attrition has been a global concern for many decades, with teachers leaving the profession at a higher rate than those entering. The largest group effected by this attrition issue is the beginning teacher” (p.101). In further research of the

retention issue, Hong (2010) reported that “such a career decision tends to be closely associated with the teacher’s own sense of self and identity as a teacher” (p. 1531). Hong believed there were four questions that needed to be asked by teacher preparation faculty:

1. “Are students creating their teacher identity when they establish education as their major of study?
2. Are students delaying the creation of their teacher identity not until they enter student teaching or perhaps enter the field as a new teacher?
3. How can faculty pinpoint the timeframe of engagement in this teacher identity process?
4. How can faculty help build the strength of teacher identity for future resiliency in the field?” p. 1531

Dassa and Derosé (2017) posited that field work should be intertwined into course work in order for a teacher’s identity to begin. According to Flores and Day (2006), teachers’ identity results from “an ongoing and dynamic process which entails them making sense and (re)interpretation of one’s own values and experiences that may be influenced by personal, social and cognitive factors” (p. 220). They tried to determine whether teacher identity can be influenced by the practicum’s field component and whether teacher identity begins to emerge from the completion of the practicum. The survey responses show that rewarding experience such as seeing a student grasp a concept during their field work help to develop thoughts and positive perceptions of being a teacher.

Zhang and Zeller (2016) conducted a longitudinal investigation of the relationship between teacher preparation and teacher retention. These scholars wanted to explore

alternative routes to teaching careers that would improve retention. Three main routes to a teaching career were identified by Zhang and Zeller namely university- or college-based, accredited, and regular teacher education program. In addition, teachers could enter the program through a lateral entry alternative licensure program. Lastly, teachers could complete a special alternative licensure program designed to ease non-education majors into teaching and support them in a teaching career (Zhang & Zeller, 2016).

Forty thousand teachers were surveyed by the Gates Foundation in 2011 regarding job satisfaction (Zhang & Zeller, 2016). Supportive leadership, time for collaboration, access to high-quality curriculum and resources, clean and safe building, and relevant professional development were the top contributors to job satisfaction. Study results showed that in Year 1, all three teacher preparation routes had a 100% retention rate; by Year 7, regular certification was at 86%, alternative licensure at 67%, and lateral entry at 35%. These results indicated that teachers who entered the profession by lateral entry significantly has a lower retention rate than the other two routes. The researchers concluded that this was due to the fact that the lateral entry teachers are not as well prepared for the classroom as regular certification or alternative licensure teachers. Although these findings are supported by the data found in the research, other factors were found to contribute to teacher retention and attrition, such as access to teaching resources, personal background, competency knowledge, and perceived support from school districts, teacher preparation program, and pupils' parents.

Race to the Top

To develop the New Teacher Support Program (NTSP), the state of North Carolina utilized Race to the Top funds. This is a model for teacher induction specifically

designed for the state's public university system, with special focus on low-performing schools (Bastian & Marks, 2017). The faculty and staff from the University of North Carolina System (UNC) delivered a three-part induction model to participating teachers within this program, namely: coaching, which is done either virtually or face-to-face; professional development, which consists of six sessions; and multiday training sessions, which are conducted prior to the opening of the school year. The program did not only support students who attend UNC system institutions, but all novice teachers in selected schools. Some key advantages of this university-based program are access to many resources that are mainly research-based, linkage with local districts, knowledge about the challenges faced by beginning teachers, and the availability of mentors not associated with K-12 schools.

Bastian and Marks (2017) conducted a study to assess the connection between participation in NTSP and teacher retention. They also examined whether there was a significant difference between teachers who participated in a university-based induction program and those who did not in terms of retention rates, evaluation ratings, and value-added elements. Overall, no differences in teacher performance were found between the teachers; however, NTSP teachers had significantly higher retention rates and would likely return to the similar low-performing school. The high teacher retention rates of NTSP teachers were positively correlated with additional instructional coaching visits (Bastian & Marks, 2017). The instructional coaching responsibilities were carried out by practicing and retired master teachers. These educators provided mentoring support to beginning full-time teachers rather than their part-time counterpart (Fletcher & Strong, 2009).

Although the components of the NTSP program did not differ from many other new teacher induction programs, four reasons can be cited as to why NTSP stood out. First, faculty and staff of teacher education programs and their fulltime coaches designed the program. Second, the program does not discriminate and caters to all beginning teachers irrespective of their educational preparation. Third, NTSP targets support in low-performing schools. Finally, NTSP is part of a state-wide university collaboration (Bastian & Marks, 2017).

New Teacher Induction

Teacher induction is not just a dilemma that schools in the United States faced, but it is also shared by colleagues in other nations. Peterson (2017), an education faculty member at the University of Johannesburg, South Africa explored new teachers' descriptions of their experiences in the "liminal" stage which is identified as the stage between being a student teacher and entering the professional world of the early grade classroom. It is a shared belief that the role of teachers is critical in preparing the youth for a dynamic world (Schleicher, 2016). As such, programs meant to professionally prepare teachers need to be designed keeping in mind the ever-changing world (Darling-Hammond & Bransford, 2005).

Peterson (2017) gained data for her qualitative study by interviewing 10 novice teachers to get their individual perspectives. The findings revealed that new teachers had an unrealistic outlook and /or were unprepared with respects to what they should expect during this phase of their career. The three main findings that novice teachers used to describe this liminal period included the difficulties in transitioning to school work environment from the teacher education program, the lack of support, and the absence of

administrative accountability as regards the monitoring and reporting on the learning progress of students (Peterson, 2017). More specifically, the interview results revealed the following findings:

1. Preservice teacher education programs did not adequately prepare students for the profession.
2. There was a lack of specialized induction and support
3. Teachers were challenged with grading and assessment of student learning.

Peterson's (2017) study unveiled a need to improve our efforts to support novice teachers liminal or transitional phase between student teaching and novice teacher. If this specialized support is not included in modern teacher preparation and induction programs, teacher attrition rates will continue to increase (Peterson, 2017).

Trinity University in San Antonio, Texas was one of the first to develop a Master of Arts in Teaching (MAT) degree, more than 20 years ago. The institution created a support model that was university-based around a Professional Development School (PDS) model. The program was recognized nationally for the significant reforms in teacher education. The development of university-urban school linkages, the recruitment of candidates of high quality, a one-year internship, and content field bachelor degrees were among the components of the program (Darling-Hammond, 2006; Scherer, 2012; Tyson, 1994). As well as incorporating various other program components used by institutions and organizations, this program integrates approaches such as action research groups, residency models, quality mentoring, and credentialing programs. In order to establish the preservice learning's foundations, this program identifies models for supporting graduates in Years 3 and following.

The 5-year retention rates of these MAT graduates exceed national averages, according to Holland, Eckert, and Allen's (2014) findings. Holland et al. revealed that there was a 98% program satisfaction rate. These findings are consistent with comparable 5-year programs, which boost higher levels of effectiveness than other beginning teachers, better preparation than traditional programs, higher levels of satisfaction with teacher education, and lower attrition rates. This is also true for teachers prepared in PDS verses non-PDS preparation. MAT retention rates in PDSs retention rates during the first 3 years hover around 100%, with relocation due to marriage being the exception.

Not every beginning teacher from Holland, Eckert, and Allen's (2014) study was placed in the PDS in many of these cases, the new teachers faced less favorable circumstances which include, but is not limited to, stagnant departments, dysfunctional teams, weak administrators, uncooperative school community, and teaching to the test as required by the curricula. Trinity University addressed this needed by developing the Summer Curriculum Writing Institute (SCWI). This is a paid week-long summer workshop designed to support the needs of MAT graduates in Years 1 and 2. In a pilot study, university faculty met with 10 new MAT graduates to establish program goals: Curriculum Writing, Teacher Efficacy, Connectedness, and Retention. In the initial years, the SCWI was opening to first- and second-year MAT graduates only; in the fourth year, it became evident that this would benefit others as well. Priority registration was given to first- and second-year graduates, while additional slots were made available to all MAT graduates, and if space allowed, MAT graduates were permitted to invite a colleague from their school to attend. Much of the week was dedicated to writing curriculum and giving feedback. One of the implicit outcomes of the week that surfaced in survey

feedback was time. Although this was not originally identified as a goal, this week gave participants time away to focus and work with one another, share ideas, and work toward a common goal. Wang, Odell, and Schwille (2008) discovered that teacher development is positively influenced by collaborative relationships from preservice until induction.

Darling-Hammond (2010) concluded that “professional development shown to impact teacher practice and student outcomes must be sustained, ongoing, content-focused, and embedded in professional learning communities where teachers work over time on problems of practice with other teachers in their subject area or school” (p. 226). According to Holland et al. (2014), this places university education programs in a prime position to support graduates in teacher education programs. First according to Holland, students in the programs graduate with a set of beliefs and skills and common knowledge base which can be built upon during the induction program. Second, the work of collaboration has already begun, so it will be easier for students to continue their collective work. Third, because universities are no longer in an evaluative role once a student graduates, the student is more comfortable with seeking feedback from university faculty and staff.

The concept of organizational socialization was highlighted in a study conducted by Kearney (2014), who concluded that an understanding about induction is lacking. Kearney found that induction programs lack a strong foundation in conceptual and theoretical knowledge that fosters beginning teachers’ learning. This author described the teachers’ early career as being characterized by learning; therefore, teachers should be involved in professional learning where they can be socialized in the working environment and inducted into the teaching profession.

This study showed a discrepancy between what administration felt was being offered as part of an induction program and what was actually offered. For example, while it was reported by administrators that 82.6% received mentoring, only 39.9% of teachers reported to have been mentored. The framework of Kearney provides for an induction structure which, aside from being research-based, is premised on well-established organizational and social practices that set the stage for professional learning. Kearney suggested creating a community where learning is encouraged by information sharing among its members to generate more knowledgeable employees. This is a cohort learning model process over an extended period where new teachers work within a community to explore critical examination of practical research, school, and classroom practices within a particular learning community.

Ultimately, the goal is to create the best learning and teaching environment for students and teachers, where teachers strive toward quality teaching to increase student achievement. Carr, Holmes, and Flynn (2017) studied an induction model that incorporated mentoring, coaching and self-mentoring as tools to support beginning teachers. One of the critical components of responsibility and sustainability for school leaders is the challenge of sustaining and retaining newly hired teachers (Carr et al., 2017). These authors' findings suggest that the practices of coaching, mentoring, and self-mentoring to transition beginning teachers into school settings in isolation and in combination can reduce new teacher turnover at a significant rate with effective implementation.

Although finding quality coaches and mentors can be a challenge, the advantages cannot be neglected as they relate to attrition, retention, and recruitment. In the 2007-

2008 survey of new teachers to whom mentors were assigned, it was found that 10% did not teach in the school year 2009-2010, and 8% already left the profession in school year 2008-2009. In contrast, 16% of the teachers who were not assigned mentors in 2007-2008 already left the profession in school year 2008-2009, increasing to 23% in the school year 2009-2010 (Kaiser, 2011).

The roles that mentors take include that of a sage and a guide with the attributes of teacher, helper, and advisor. Mentoring involves the induction of individuals called mentees who are new to an environment or profession. Ideally, a mentor is someone who “serve as advisors, sponsor, host, exemplar, and guide to a novice who is moving from dependence and inexperience toward independence and proficiency” (Nakamura, Shernoff, & Hooker, 2009, p. 2). “Coaching refers to the observer on the sidelines who provides explicit instruction, ongoing, detailed feedback regarding performance, and ‘in-the-moment’ support to guide a player’s development” (University of Washington’s Center for Educational Leadership, n.d., para. 1). The provision of individualized professional guidance is the focus of school-based coaching.

Self-mentoring is a new concept that involves reflection, goal-setting, and a sense of personal vision for one’s personal and professional future as a teacher (Carr, Pastor, & Levesque, 2015). Self-mentoring has its foundation in self-leadership theory. This is a self-guided practice where individuals use internal mechanisms as means of focusing their efforts to guide and lead themselves in an improved leadership through self-motivation and self-direction. Used independently, self-mentoring can be as effective as when used in concert with coaching and mentoring. Self-mentoring has four levels

namely self-awareness, self-development, self-reflection, and self-monitoring. These levels are sequential, individualized, and self-paced.

The figure below illustrates what Carr et al. (2017) identified as the contrasts between mentoring and coaching.

<p>“Mentoring</p> <ul style="list-style-type: none"> - Uses a mentor and a mentee - Is long term <p>Types of mentoring:</p> <ol style="list-style-type: none"> 1- Formal (prescriptive practice) or informal (less prescriptive in delivery) 2- Sub-mentoring (additional mentoring to supplement a traditional model) 3- Group mentoring (more than one mentee or mentor) 4- Reverse mentoring (younger/inexperienced teachers serve as mentors to experienced/older teachers) 5- Co-mentoring (two mentors serve one mentee) 6- Diverse mentoring (aligning differences) 7- Executive mentoring (corporate or business mentoring) 8- Professional or trade mentoring (mentors for a specific profession/trade) 9- Work or life mentoring (personal and/or professional goal setting) “ 	<p>“Coaching</p> <ul style="list-style-type: none"> - Uses a coach and a coachee - Has a short term duration with a very focused goal <p>Types of coaching:</p> <ol style="list-style-type: none"> 1- Formal coach (often assigned by the employer or an external resource) 2- Executive Coach (business or corporate) 3- Co-coaching (two coaches for one coachee or one coach for two coachees) 4- Cognitive coach (instructional) 5- Life coach (quality of living) 6- Sports coach (athletics) 7- Workout coach (exercise) 8- Team coach (a group of individuals agree to meet and serve in the capacity of both the coach and coachee, as needed) 9- Health coach (nutritional) 10- Professional coach (term for coach that earns a professional from coaching)”
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Figure 1. Contrasts between mentoring and coaching.

Carr et al. (2017) suggested that school districts should consider a combination of these practices, such as providing a mentoring program for beginning teachers or training as one of its components. In the second and third years of beginning teachers, mentoring

induction and coaching techniques must follow respectively. While the method for delivery is flexible, the need for a formalized plan is critical to the retention of new teachers.

In 2015, the United States Department of Education launched the What Works Clearinghouse (WWC). A systematic review on the New Teacher Center (NTC) induction model was conducted and an intervention report on the findings was subsequently issued. The induction model has four components: leadership and induction systems; new teacher development; mentor development; and leader capacity building. According to the NTC, the programmatic goal is to increase beginning teachers' effectiveness in terms of improving the learning of student through professional development activities and a one-on-one mentoring program. With the aim of developing and implementing teacher induction programs that are congruent with the priorities both NTC itself and of school districts, the NTC collaborates with the state education department and school districts.

Included in the WWC are 413 novice teachers in 199 schools in eight urban school districts who are considered as eligible for an induction program. It was found that there was little significance in the three teacher retention outcome domains-which were retention in the profession, in the district and in the school. The induction model designed by the New Teacher Center was also found to have no significant effects on the beginning elementary teachers' retention.

According to Rogers and Skelton (2014), 33% of teachers entering public schools stop teaching within 3 years, and the rates are higher when teaching low-achieving students. As a result, many states depend on federal funds from program such as No

Child Left Behind to provide accountability and support for professional development and student achievement. The Michigan Department of Education requires beginning teachers to collaborate with at least a master teacher, aside from participating in training on teaching methods and classroom management.

Retention describes the ability to maintain the teacher workforce and reduce turnover. According to Lasagna (2009), retaining effective teachers is beneficial to all the stakeholders. Turnover includes leaving the teaching profession and transferring from one school or district to another (Ingersoll, 2001). Both of those who leave the profession and transfer from one school or district to another cost taxpayer over \$2 billion yearly (Alliance for Excellent Education, 2005).

These researchers advocate professional development and mentoring as a mean to help teachers meet instructional goals. According to Phillips (2003), training programs such as action research teams and professional academies not only encourages constructive changes in the teaching profession but promote cooperating networks as well. Teaming allows teachers with stronger skills to help teachers with weaker skills and result to improvements by sharing information and techniques. The Alliance for Excellent Education (2008) stated that to support quality teaching we must have collaborative decision-making, strong leadership, mentoring, and fair and appropriate lessons.

Seasoned and experienced teachers are needed to support beginning teachers and to help the districts achieve higher rates of attrition. Professional development opportunities should be a continuous training experience. If experienced and qualified teachers feel that both the administrators and their peers are supportive to them, they are less likely to leave the school system (Rodgers & Skelton, 2014).

Kingsley and Romain (2010) conducted research with the goal of designing and validating an instrument that qualifies new and preservice teachers' best practices effectively. Their instrument consisted of six aspects namely management, student accountability, assessment, teacher accountability, individualizing instruction, and literacy. There are those who believe that the key to addressing the problem on teacher shortage is to lower certification qualifications and paint a rosy picture of the profession (Kinsley & Romain, 2010).

Helig (2010) reported that only 15-20% teachers of Teach for America (TFA) teachers remain in the profession after 4 years. Using an instrument such as I-LAST improves the precision and efficiency of teacher assessment, thereby making it easier for administrators to identify the areas of strengths and needs for new teachers. It would also address the significant gap between feedback and constructive evaluation by informing researchers on the growth of beginning teachers and the various aspects of teacher induction programs (Kingsley & Romain, 2010).

The intersection among evaluation, emotional support, and professional assistance was the subject of a study conducted during the 2009-10 school year in which the researchers studied the emotional and professional mentoring supports within an urban school district that centered its inductions program on structured teacher evaluation (Israel, Kamman, McCray, & Sindelar, 2014). According to Billingsley et al. (2009), induction and mentoring are used interchangeably, although induction programs have a great variance, almost all have a mentoring component. Israel et al. (2014) stated that of the various roles of mentors, the most cited functions involve emotional support, such as strategies for handling, job-related stress of the first years. Such supports include school-

wide programs and policies, compliance procedures, management, behavior, aligning instruction, and assistance with instruction. Research is limited as to how evaluation of beginning teachers and mentoring are best combined.

Kram's (1985) view of social emotional and professional supports were used as a theoretical framework for this study. Kram identified two functions of mentor support: (a) professional support, which is concerned with the achieving protections against disadvantageous workload and the navigation of the steps toward organizational advancement, and (b) social emotional support, which improves the emotional well-being and professional self-efficacy of the new teachers. The mentors for this study were designated by the district has highly skilled teachers, who carried the highest professional rank. In order to attain this level, teachers had to complete a rigorous application process that included classroom observations, written essays, and an interview. After selection, mentors were given a 10-day mentoring on professional development, particularly focusing on evaluation system. All new teachers from the 2009-10 school year were participants; however, a sample of 16 was selected based on their diversity. Data collection was done through the evaluation of documents, interviewing new teachers, and charting mentor time allocation.

Israel et al. (2014) conducted a study where time allocation data were analyzed to determine how mentors were spending their time with new teachers. New teachers were interviewed twice formally and twice informally, and feedback was recorded using the district evaluation tool. Questions for the new teachers were centered around the evaluation's role in their mentoring experiences, comfortability with their mentors, and their mentoring experiences. It was found that the structured evaluation procedure guided

the mentors in providing feedback to their teacher mentees. It was also found that there was an interrelationship between professional and emotional supports given by the mentors to their teacher mentees. There was no indication that the evaluative roles of mentors barred the mentoring process.

Pogodzinski (2015) found that the administrative context of schools is correlated with the interactions between beginning teachers and their mentors. This finding supports the findings of other studies to the effect that when support mechanisms are in place for beginning teachers during the induction program, the interactions between mentors and beginning teachers are more likely to be smooth. It was also found that formal mentoring was the most prevalent aspect of teacher induction programs (Ingersoll & Strong, 2011). There is still a great deal of variance within the school's administrator's capacity and willingness to support novice teacher inductions (Youngs, 2007). There is a relationship between the school administrators' routine practices and beliefs and the kind of relationship that beginning teachers have with their mentors.

When their mentors possess substantial knowledge about the subject matter, mentees are more likely to improve in their teaching practices by critically engaging in instructional and curriculum techniques (Grossman & Thompson, 2004). On the other hand, when the mentor's knowledge on the subject matter is inadequate, the mentor-mentee relationship was less meaningful. In Fletcher, Strong, and Villar's (2008) study, the investigators revealed that frequent interactions with mentors and new teachers will yield more successful interactions and ultimately retention and teacher effectiveness. These interactions are directly impacted by school administrators' actions. Factors such as evaluation of effectiveness, program oversight, reduction of barriers to interactions,

and mentor selection and designation relate to the philosophy of school administrators (Pogodzinski, 2015).

The administrative context study showed that school administrators have both a direct and indirect impact on mentor-mentee interactions. On average, beginning teachers interacted more on curricular matters with their mentors. If new teachers had a negative perception on their relationship with school administrators, an interaction between them and their mentors on curricular matters is less likely to occur. There was not much interaction between beginning teachers and their mentors on student assessment and behavior as well. This author posited that this is due to the mentor's specific role within the school, which is to focus on instruction instead of testing and assessment. This author concluded that the overall working conditions in the school affect the quality of the interactions between beginning teachers and their mentors.

Kearney (2016) conducted a two case studies around what happens when new teachers have a negative induction experience. While the literature is replete with evidence to the effect that induction experiences have positive effects on beginning teachers, evidence is lacking as to the impacts of inadequate induction programs on the personal and professional lives of new teachers. Teacher induction programs is lacking. While guidelines to address this is being developed at present, induction will not be mandated. Consequently, schools will have the discretion to either to implement the new guidelines or stick with current practices, which may or may not be working (Kearney, 2016).

The transition from preservice to in-service teaching is made smoother by effective induction. It also counteracts the difficulties beginning teachers' experience.

Researchers have been able to validate the necessity for induction. Kearney (2016) found that the most successful programs were developed collaboratively between university staff and other experts. The most successful programs identified the needs of new teachers and went beyond introductory familiarization. They identified effective principles and practices in terms of providing assistance on the new teachers' transition from training to teaching.

The administrator for the first school in this case study reported to have an induction program, however there was no evidence of an informal or formal program at the school. The induction program was "very successful," and cited that the beginning teachers were among the happiest he had working relationship with. What teachers reported, however, was a patent contradiction. Words used by the teachers included: "haphazard," "terrible," "disjointed," "ridiculous," "poor," and "poorly managed." The teachers reported being disappointed by their induction and frustrated by the process.

In the second school in the case study, the participant perceives the induction program as a mere compliance measure. The program offered little structural support except for a 2-day orientation. This was referred to by administration as induction. At the start of the year, new teachers are made to participate in a two-day orientation where they will be given a packet which contains the necessary paperwork for accreditation. After that, they are left by themselves to go with the process. The teachers were left to find people on their own that were able to answer questions and provide support.

When induction is aligned with best practices the needs of new teachers can be met. Effective induction program is characterized by the following nine elements: a 1- to 2-year required program focused on teacher learning and evaluation; mentor support;

opportunities for collaboration; observations that are structured; additional release time or a diminished schedule; a professional development program; professional support and/or professional networking; beginning teacher seminars and/or meetings; and intensive workplace learning (Kearney, 2014). Case study number one did not have any of these components, while case study number two had the provision of a mentor and opportunities for collaboration. Kearney found that new teachers remained at these schools in spite of the structured inductions programs led by administration; they stayed at the schools because the new teachers and veteran teachers developed their own relationships without the support of administration.

LoCascio, Smeaton, and Waters (2014) studied the effects of teacher induction program on the decision of teachers to remain in the profession. Researchers have shown that 9.3% to 17% of new teachers do not make it through their first year of teaching (Ingersoll & Merrill, 2010). Schools in low socioeconomic areas have the greatest turnover rates, and 50% of teachers leave in urban areas in the first 5 years (Easley, 2006). According to Stronge (2007), it takes 3 to 5 years to develop new teachers. Within that duration, the classroom management skills and confidence of new teachers are built, and their lesson planning and assessment are developed. It has been documented that teacher attrition negatively affects both the school budget and student achievement (National Center for Education Statistics, 2007). This is more prevalent in urban schools where teachers are less experienced and less qualified than in rural and suburban schools. Those who teach in urban school settings are confronted with issues such as high rates of absences, student behavior, and lack of basic resources, all of which contribute to higher attrition rates (Tillman, 2005).

To address the issue on the lack of qualified teachers, alternative certification programs have been developed. Alternative certification programs share admissions criteria such as passing the national achievement assessment and having a bachelor's degree. Alternatively, certified teachers encompass one third of the teaching population nationwide. (Feistritzer, 2007). Contrary to the initial expectations of these programs, it was found that alternative route teachers may be just as likely to leave the field during the first 5 years as traditionally prepared candidates (Donaldson, 2008). Comprehensive induction programs and effective mentoring are found to improve retention (Ingersoll & Smith, 2004).

In LoCascio's study on how induction programs affect the decision of alternate route urban teachers to remain teaching, the mentoring experiences of alternate teachers in northeastern New Jersey's low socioeconomic urban areas were examined (LoCascio et al., 2014). The results of this mixed-methods study revealed that the induction program was frequently not being adhered to, many teachers did not receive their phase one induction as mandated by the state. Interestingly, this did not affect teacher attrition. Extrinsic and intrinsic factors, such as strong self-efficacy beliefs and struggling economy, seemed to be a greater determinate of teacher retention. The problems of experienced by beginning teachers were not mitigated by the mentoring program. Albeit dissatisfaction with the teaching profession, beginning teachers remain.

Mentor responsiveness, confidentiality, trust, and comfort with their mentors were found to be significant aspects of effective mentoring programs (LoCascio et al., 2014). The "one size fit all" approach only existed by way of name, and did not actually happen. Administrators need to do their part by monitoring mentor-mentee activities, actively

participating in the induction program, and putting systems and structures in place to support activities. Advocacy is also needed by administrators and school boards to have retired educators return to become mentors to new teachers. Administrators are also needed to provide new teachers with safety nets who started teaching when the school year has already begun (LoCascio et al., 2014). The researchers ultimately concluded that for this population, the initial mentoring and induction experiences did not affect beginning teachers' decision to remain in the profession. Instead, it was influenced by contextual variables and personal attributes.

Ronfeldt and McQueen (2017) aimed to answer the question, "Does new teacher induction really improve retention?" According to Goldrick et al. (2012), some forms of induction are required by nearly all states. Among all teachers at a national level, only 10% reported to have not participated in teacher induction programs in the first year of their career (Ingersoll, 2012). The authors of correlational studies have suggested that retention is improved by teacher induction programs (Ingersoll & Strong, 2011).

Although there has been a strong evidence that establishes correlation, a large-scale experimental study has thus far indicated that there is no significant relationship between retention and teacher induction (Glazerman et al., 2010). To investigate this relationship, Glazerman et al. utilized the recent data of the Schools and Staffing Survey (SASS) and Beginning Teacher Longitudinal (BTLS). The data on teacher mobility was paired with retention using various school and teacher characteristics. It was found that beginning teachers who have induction experiences are less likely to transfer to other schools or leave the teaching profession (Ronfeldt & McQueen, 2017).

Ronfeldt and McQueen found that teachers who participated in a comprehensive induction program are more likely to leave the profession or transfer to another school. It was also found that retention is increased by collaboration or common planning. Additionally, teachers who have a teacher aide is less like to transfer to another school. The researchers found that receiving several combined supports, including induction increased the likelihood of new teacher retention. These supports include having a mentor, a teacher network, teacher collaboration, supportive administration, and extra resources. This increased retention compared with no supports.

Teacher Retention

Brown, Gonzalez, and Slate (2008) studied the attrition of public-school teachers in Texas. They focused their investigation on the reasons given by the teachers for leaving the teaching profession during the first year of their career. The study participants consisted of eight teachers who left the profession after their first year of teaching. Brown et al. gathered data using interviews, observations, documents, and artifacts. Interviews were conducted in a conversational format, rather than one on one questions. The participants were selected using snowball and criterion sampling. Former teacher interview narratives, as well as detailed field notes, constituted the data for the study. All interviews were conducted by the lead researcher. The results revealed the following factors influence teacher attrition: administrative issues, student discipline issues, and teacher salaries. Among these three, the most noted factor was student discipline. The study revealed the need for higher teacher salary, consistent student discipline, and increased administrative support.

A mixed methods study conducted by Lack, Mays, Meyers, and Swars (2009) focused on the perceptions of teachers about mobility and retention included one hundred elementary school teachers. Data sources included the open-ended questionnaires, interviews, and surveys. Due to the various issues faced by teachers, Highland Elementary entered a PDS relationship with a local university in August 2005. These issues include students' families having limited financial resources and a high rate of student mobility and. Additionally, the school had a high rate of teacher turnover. Because of the contribution of teacher turnover to organizational instability, it has substantial implications to the teaching profession.

Lack et al. (2009) conducted research around the organizational factors that relate to why remain or leave a given school. Their study explored the perceptions of teachers on the factors to which retention and mobility can be attributed. Surveys were used to collect quantitate data, and interviews and open-ended questionnaires were used to collect qualitative data. Five themes emerged as necessary to keep teachers in their schools. These themes include relationships with co-teachers, daily life experiences, relationship with school administrators, unique student population, and shared values.

Block-entry regression analysis was used in a 2012 study by Hughes to identify how retention is influenced by teacher efficacy organizational attributes, and teacher attributes. Hughes' study enriched the literature about teacher retention and helped inform practice in teacher preparation programs as to how retention is influenced by teacher efficacy organizational attributes, and teacher attributes. The author also aimed to inform schools about the mediating role of organizational and school characteristics in this relationship.

Hughes (2012) conducted a survey randomly sampling 200 teachers at schools in a southern state representing 10% of the schools' population. E-mail and paper letters were sent to principals to elicit responses from teachers. Surveys were posted online, and a link was sent via e-mail. The total number of surveys that were partially completed was 1,149, and the number of surveys that were completed was 789. The survey contained open-ended and response option questions.

The rates for teacher retention were 13.2% to 15%, which were similar to national averages. Advancement in education was the most cited reason for leaving the teaching profession. A total of 90% of participants signified plans to remain with the profession. Newer teachers were less likely to teach until retirement than teachers with 10 or more years in the profession. These data indicated that school administrators were taking steps to increase the retention rates of teachers.

Dee and Wyckoff (2015) studied how teacher retention is influenced by selection, teacher performance, and incentives using evidence from the controversial, IMPACT evaluation system in Washington, DC public schools. In recent years, the notion that teacher quality is as critically important determinant of student development and achievement has led to several districts adopting an incentives-based teacher evaluation system that is tied directly to compensation. Many clear measures of teacher performance were established by IMPACT. The results of the measurement were then related to each of the teachers using incentive and dismissal as motivators. It was found that teachers who received increases in their base compensation were rated as highly effective, while teachers who were forcibly separated were rated as either ineffective or minimally effective (Dee & Wyckoff, 2015).

Dee and Wyckoff (2015) found that teacher retention and performance outcome might be influenced by threats of dismissal. This is because the voluntary attrition of low-performing teachers is substantially influenced by threats of dismissal. Only 12% of the teachers rated as effective or highly effective voluntarily leave the profession, while 30% of the beginning teachers do so. Those who are nearest to the effective threshold are more likely to remain in the school district than those that are further from it. From school district data, IMPACT scores from teachers in their first and second year of teaching are usually 17 points less than teachers who have been teaching for 3 or more years. In fine, it has been suggested that the DCPS workforce effectiveness was improved by IMPACT both in terms of differential attrition and performance gains.

In order to understand the characteristics of teachers who stay and succeed in urban school settings, Tricarico, Jacobs, and Yendol-Hoppey (2014) examined the experiences of teachers who were able to accomplish the funded program known as Transition to Teaching. The findings of their study indicated that survival skills are vital during the early years of a person's teaching career to remain in power. This power is influenced by success skills. Tricarico et al. described the factors influencing developing teachers who stay and have impact as they teach in challenging urban schools, suggesting that these teachers possess a strong work ethic, seek specific resources to improve pedagogy, have the knowledge and skills necessary to differentiate instruction, and seek teacher leadership opportunities in their schools.

The research conducted by Bondy, Ross, Galligane, and Hambacher (2007) showed that successful urban teachers develop a safe and nurturing learning environment and build relationships with students. These teachers demonstrate authentic care by

providing emotional and academic support to students, while maintaining high expectations for student performance. They believe in the capacity of students to succeed. They show love of students through rigor, high expectations, behavioral expectations, affirming the identities of students, and holding students accountable (Bondy et al., 2007).

This study around the topic of creating an environment of success and resilience was organized into four assertions. First, teachers in high poverty schools with “staying power” and “impact power” enter with and maintain a sense of calling to work with children in high needs contexts, a strong work ethic, and an unrelenting persistence. Second, those with “staying power” and “impact power” assertively look for resources. Third, those with “staying power” and “impact power” account professional knowledge for their professional success. Lastly, teachers with “staying power” and “impact power” look for leadership opportunities to improve their schools but are most of the time hindered by different barriers (Tricarico et al., 2014).

Researchers from Emporia State University Church, Bland, and Luo (2014) and Webb and Norton (2008) detailed best practices for the retention, improvement, hiring and training of high-quality teaching staff. Church, Bland, and Luo (2014) explained how leaders can improve teacher retention by effective induction programs. Webb and Norton (2008) suggested that recruiting should be a continuous process, with goals and objectives for the district plan for recruitment annually. Furthermore, Webb and Norton (2008) learned that the reputation of a school district is key to effective recruitment; therefore, a marketing plan should be established that highlights the assets of the district. Districts should foster partnerships with local colleges and universities to create

pipelines. Other options for recruitment discussed in the article include alternate certification programs and future teacher programs within the school district.

Recommendations with regards to retention include ensuring that teachers are supported by providing induction and mentoring program. For instance, Coggins and Diffenbaugh (2013) recommended new teachers to obtain mastery of key evaluation indicators. When teachers feel good about their work, they are more likely to stay. This can be achieved by not placing new teachers in the most challenging classrooms, providing teachers opportunities to work collaboratively with teams, providing frequent feedback, give them a say in school policies, providing ongoing professional development opportunities, creating favorable working conditions, and allowing autonomy with regards to instruction (Coggins & Diffenbaugh, 2013).

The focus of a study conducted by Djonko-Moore (2016) from the University of Tennessee, Knoxville was to analyze interactions between school climate variables on teacher mobility and attrition from high poverty racially segregated schools (HPRS) in combination with teacher characteristics and school setting characteristics. The study was grounded in social ecological theory (SET; Bronfenbrenner, 1977) and school organizational theory (Hoy, Tarter, & Bliss, 1990). The classroom served as the microsystem in this model where the teacher carries on the majority of his or her activities; the school where the teacher worked was the mesosystem; and the larger school district and community where the teacher operates, lives, and interacts with others was the exosystem (Djonko-Moore, 2016). Teacher characteristics, school setting characteristics, and school climate were three key factors that continue to immerge as reasons for attrition, according to Djonko-Moore.

When the researchers examined teacher characteristics, they found that the race of teachers influences mobility and attraction, that is, when placed in a minority school, white teachers are more likely to quit than black teachers (Scafedit, Sjoquist, & Stinebrickneer, 2007). Other factors included teacher experience, with new teachers being more likely to leave the profession; factors also included teacher wages and certification route. Teachers that are classified as more qualified teachers are more likely to move to another school than to leave the profession (Djonko-Moore, 2016).

Stigmas and stereotypes plague these schools due to their large minority populations. These schools have been linked with higher attrition rates based on this perception. School climate factors such as parent and community engagement, and student behaviors such as repeated absences, discipline problems, lack of readiness, tardiness, tardiness are the other aspects linked with increased teacher attrition and mobility. The study findings in the area of mobility showed that teacher characteristics vary significantly and predicted teacher mobility from these schools. Racial diversity among school staff decreased the likelihood of teacher mobility. While student behavior was the only variable that significantly predicted mobility among school climate variables.

Attrition findings relating to salary showed that an increase in teacher salaries did not prevent teacher attrition. Student-teacher ratio proved to be a factor in teacher attrition. Negative perceptions of teachers on student behavior increased attrition. Based on these results, the efforts of policymakers and administrators must be focused on professional development in order to provide teachers with a deeper understanding of the prevalent issues in the educational system (Djonko-Moore, 2016).

Research Questions***Question 1***

Which component(s) of the new teacher induction program has the highest positive effect on teacher retention?

Question 2

Which component(s) of the new teacher induction program has the least effect on teacher retention?

Question 3

To what extent do each of the components of a new teacher induction program (i.e., summer teacher institute, site-based mentoring, and on-going professional learning) affect a new teacher's decision to remain in the school district?

Chapter 3: Methodology

Research has demonstrated the positive impact teacher quality has as the single most critical factor in student success (Ingersoll, 2003). High teacher turnover has thwarted these efforts to improve teacher quality (Ingersoll, 2003). U.S. schools have experienced significant consequences from teacher attrition (Carroll, 2007). The work of combatting teacher turnover has been undertaken by state, district, and school policymakers through the implementation of mentoring and induction programs for beginning teachers. More than 50% of the states have some type of induction program for new teachers. (Goldrick et al., 2012). In 2008, over 90% of all teachers nationally reported participating in an induction program during their first year, a number which has increased significantly from 50% in 1990.

In this chapter, the researcher describes the methodology used in this quantitative research study. The researcher provides descriptions of the survey participants, instrument, procedure, data analysis plan, and limitations of the study.

Participants

The target population included urban school teachers from a large district in Maryland with 1 to 5 years of experience. The components and weight of each component of the teacher evaluation system as determined by Maryland State Department of Education are as follows: Student Learning Objective (SLO)-20%, Classroom Observation #1-20%, Classroom Observation #2-20%, School Performance Measure-15%, and Professional Expectations Measure-10%. The researcher obtained the qualifying participants from the school district's Office of Human Capital based upon new teachers who met these criteria.

The participants for this study consisted of teachers from the SY1415, SY1516, SY1617, SY1718, and SY1819 New Hire Cohorts. Tables 1 through 3 illustrate the demographic data, including race/ethnicity, age, and gender for the district's new hire cohorts, which was provided by the Office of Human Capital for the district.

Table 1

New Hire Cohort Summary by Race/Ethnicity

Race/Ethnicity	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
	#-New Hires	#-New Hires	#-New Hires	#-New Hires	#-New Hires
American Indian Alaskan	2	4	2	3	1
Asian	22	25	15	20	31
Black African American	165	217	212	168	223
Hispanic/Latino of Any Race	28	19	25	17	39
Native Hawaiian Pacific	0	0	1	0	0
Not Reported	0	0	1	0	0
Two or More Races	19	16	12	23	23
White	334	347	250	186	258
Total	570	628	518	417	575
Note	Reflects new hires from 6/1-9/1 in classroom teacher job titles	Reflects new hires from 6/1-9/1 in classroom teacher job titles	Reflects new hires from 6/1-9/1 in classroom teacher job titles	Reflects new hires from 6/1-9/1 in classroom teacher job titles	Reflects new hires from 6/1-9/1 in classroom teacher job titles

Table 2

New Hire Cohort Summary by Gender

Gender	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
	#-New Hires	#-New Hires	#-New Hires	#-New Hires	#-New Hires
Female	435	455	375	322	422
Male	134	173	142	95	153
Total	569	628	517	417	575

Table 3*New Hire Cohort Summary by Age*

Age	2014-2015 #-New Hires	2015-2016 #-New Hires	2016-2017 #-New Hires	2017-2018 #-New Hires	2018-2019 #-New Hires
Less than 25 years old	249	213	178	145	208
Between 25-30 years old	134	175	141	106	133
Between 40-50 years old	106	132	109	84	128
Between 30-40 years old	56	62	65	45	70
Between 50-60 years old	23	33	20	26	26
60+ years old	1	13	5	11	10
Total	569	628	518	417	575
Note	*Age as of 9/1/14	*Age as of 9/1/15	*Age as of 9/1/16	*Age as of 9/1/17	*Age as of 9/1/18

To attain a reliable number of participants, the researcher attempted to recruit all teachers who were in the new hire cohorts between SY1314 and SY1718 who remained with the district to complete a New Teacher Survey (see Appendix A) sent via the K12 Insight survey platform. Each member of the identified new hire cohorts received an email that included the survey link, letter of invitation and confidentiality notice. These participants were in their first, second, third, fourth, or fifth year as a teacher in the district. The researcher assured each participant of the confidentiality of their individual responses and that their participation was voluntary. The researcher informed the participants that their responses would not be linked to their identity in any way. The survey instrument was sent electronically using school district e-mail addresses attained from the Office of Human Capital based upon a Memorandum of

Understanding between the researcher and the school district (see Appendices B, C & D). The potential participants were sent the link for the survey accompanied by a letter of explanation (see Appendix E). This survey was sent out to approximately 2600 participants and yielded only 39 responses. Therefore, the researcher requested the results of the New Teacher Induction Program Quality Survey (NTPQS) that was completed by new teachers in SY16-17, SY17-18 and SY18-19 to provide additional data to support the findings of the New Teacher Survey.

Instrument

The researcher collected data in this study based on an established survey instrument called the New Teacher Survey (Mingo, 2012). A survey was the most appropriate instrument to be used for this quantitative study because the researcher developed the research questions posed in this study to examine trends across data from multiple participants (Creswell, 2012). The researcher implemented a cross-sectional research design instrument to examine the beliefs and opinions of the sample population at one point in time (Creswell, 2012). The specific instrument being used in this study will be an adapted version of a 2012 survey entitled the Beginning Teacher, Mentor, Site Support Leader, and Administrator Survey (Mingo, 2012). This instrument is appropriate for the sample population because the study participants will be beginning teachers with teaching experience of 5 years or less in an urban school district.

Repeated attempts have proven unsuccessful at reaching the author of this survey. Experts from the district have vetted the questions and deemed them valid and reliable for answering the research questions.

The researcher modified this instrument slightly to fit the specific objectives of this study. Unlike the original survey, in which the participants included administrators, site support leaders, mentors, and beginning teachers, this survey was adapted to attain data exclusively from new teachers. The survey included four sections: (a) New Teacher Institute Program, (b) Mentor Support, (c) Principal Support, and (d) Teacher Retention. The section of questions regarding site support leaders has been omitted, and a section regarding teacher retention was added. The researcher changed the title of the survey to New Teacher Survey to reflect these modifications (see Appendix A).

The survey responses are related to the New Teacher Induction Program for the district. The researcher used a Likert scale from 1 to 4, with *strongly disagree* indicated by a 1, *disagree* indicated by a 2, *agree* indicated by a 3, and *strongly agree* indicated by a 4. Likert agreement scales are frequently used in surveys to measure respondents' attitudes by asking how strongly they agree or disagree with a set of questions or statements (Kumar, 2005). This type of evaluation method consisted of using numbers which correlated with a person's view (Kumar, 2005). The researcher calculated the average of each survey response by adding all of the responses together and dividing by the total number of responses for each of the questions. The strength value of a given correlation of an average score will be as follows: 3.0 to 4.0 = strong response; 2.0 to 2.99 = moderate response; and 1.0 to 1.99 = weak response (Kumar, 2005).

The participants completed the survey using an unidentifiable link via K12 Insight. This link had no way to track the identity of any survey participant and submitted their responses anonymously.

Procedures

Design

In this quantitative study, the researcher utilized a correlational design to examine whether a pattern exists between variables, specifically explaining how the components of a new teacher induction program impacted teacher retention. The researcher followed a correlational research approach with an explanatory design (Creswell, 2012). New teachers shared their feedback in the four areas of the survey designed to identify the effects of each of the four areas on teacher retention. Following IRB approval, the researcher collected data from the survey participants who were teachers hired during the school years of 2013-2014 to 2017-2018. The survey instrument was sent electronically using school district e-mail addresses attained from the Office of Human Capital based upon a Memorandum of Understanding between the researcher and the school district (see Appendix B). The potential participants were sent a survey link accompanied by a letter of explanation (see Appendices appC & D).

To gather relevant information on the research questions, the researcher distributed an electronic link to a four-part 30-item survey. For purpose of aligning the themes, the researcher referenced the objectives of the new teacher induction program of the district. The layers of support that beginning teachers received during the induction program related to every part of the survey.

New Teacher Induction Sessions

The questions from the first part of the survey evaluated the support new teacher received from the summer new teacher induction sessions. Teachers must be lifelong learners and implementing effective induction programs is the “best way” to achieve this

(Wong, 2002). Effective induction programs comprise: (a) giving new teachers tools and strategies in classroom management, (b) intensive and strategic mentoring, and (c) collaboration among new teachers with others in the school community (Wong, 2002). Although varied from school district to school district, induction programs share the benefit of positively impacting student outcomes (NTC, 2007). The new teacher induction program in Baltimore City Schools consists of a New Teacher Summer Institute where teachers spend two weeks over the summer participating in professional learning.

Mentor Support

The second part of the survey sought to determine the effectiveness of support that is provided by a new teacher mentor. Mentor programs for beginning teachers ease the transition of new teachers into the profession, reduce attrition rates, improve job satisfaction, and help improve effectiveness of teachers early in their careers (Flynn & Nolan, 2008). New teacher mentoring programs' best practices can be found in literature. The key factors in a successful mentoring program are: accountability, governance, and appropriate matching and selection between mentors and mentees, and mentor selection and matching mentors appropriately with mentees (Flynn & Nolan, 2008). Either for standalone or induction-related mentoring programs, these factors are significant (Flynn & Nolan, 2008). Each new teacher in Baltimore City Schools is assigned a mentor within his/her school building. The new teacher and the mentor meet on a regular basis for support and coaching.

Principal Support

The first part of the survey delves into the support beginning teachers received

from their principals. One of the reasons identified by beginning teachers for leaving the profession is the lack of school administration support (Ingersoll & Smith, 2004).

Principals hold the power to create a nurturing learning environment and create the conditions for a successful implementation of new teacher induction programs (Watkins, 2011). Furthermore, school leaders serve as advocates for giving value to beginning teachers, by promoting a collaborative relationship between mentors and mentees, and giving feedback to new teachers that promotes professional growth (Watkins, 2005).

Teacher Retention

Part 4 of the survey evaluated respondents' motivation for remaining in the district based upon the goals outlined by the new teacher induction program.

Data Analysis

A response frequency table was created for each of the survey questions. This revealed the percentage of responses for each of the possible choices in the five-point Likert scale. The mean, mode, median, and standard deviation were calculated for each question (Kumar, 2005).

The first and second research questions ask, "What component(s) of the new teacher induction program have the highest effect on teacher retention?" and "What component(s) of the new teacher induction program have the least effect on teacher retention?" To address these first two research questions, mean and standard deviation were calculated, and a frequency analysis was performed on the survey questions. The researcher utilized the results from this analysis to determine which factors from the survey question responses were significant (Kumar, 2005).

The third research question inquires, “To what extent do the components of a new teacher induction program, i.e., Summer Teacher Institute, Site-Based Mentoring, and on-going Professional Learning affect a new teacher’s decision to remain in the school district?” To address this research question, survey questions from the instrument associated with the components of the new teacher induction program were used to determine the component’s impact on teacher retention. Bivariate correlational analysis was conducted to assess the strength of the direction of the relationship between new teacher induction and teacher retention (Perinetti, 2019).

Limitations

Participation in the survey was voluntary; therefore, a limitation was having a limited number of survey responses returned to be able to yield results that are statistically significant. The researcher worked with the Office of Human Capital to identify strategies that would yield the greatest number of participants.

Chapter 4: Results

Introduction

Surveys were completed and electronically submitted through the K12 Insight. The mean and percentage of 4 (*strongly agree*) and 3 (agree) of the three components for each part were calculated. These led to the determination of the central tendency for each group. These data were then used to identify the survey items' strength codes. Collected data was used to determine the participants' perception on new teacher induction program and how it affects teacher retention.

The objective of this analysis was to determine which, if any, components of the New Teacher Induction Program are related to increases (or decreases) in teacher retention in a large urban school district within the United States. A survey was administered to new teachers in a larger urban school district during the 2019-2020 school year, requesting information on various section related to the teacher experience during the previous school year. The components included involved teachers' opinions towards important factors for new teachers to experience, including the induction process, mentors for new teachers, and the school principal. This survey also included respondents' plans to continue teaching the next year. Data was collected from 39 respondents. Scores for three sections of the survey were calculated based on respondents' answers, as well as a binary variable identifying teachers that would teach again the following year. Logistic regression was used to test each hypothesis and quantify the effects that each survey section had on teacher retention and compare among sections.

Research Questions and Hypotheses

Three research questions were asked, and statistical hypotheses were developed to assess each research question. Each research question focused on an individual area of interest and were tested independently.

Research Question 1

Which component(s) of the new teacher induction program has the highest positive effect on teacher retention?

Research Question 1 focused on examining the component of the New Teacher survey that had the highest positive effect on teacher retention. The results of the analysis indicated that the Principal section of the New Teacher survey had the largest effect on teacher retention. However, it is important to note that this effect is still not statistically significant, suggesting that the components of the New Teacher survey is not effective in retaining teachers.

Table 4

Results for Research Question 1

Variable	Estimate	St. Error	<i>t</i> -value	<i>p</i> -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.053	0.490	2.150	0.0315	--	--	--
Induction	-0.041	0.606	-0.068	0.9454	0.959	0.289	3.186
Mentor	0.373	0.371	1.006	0.3143	1.452	0.696	3.027
Principal	0.496	0.485	1.022	0.3067	1.642	0.628	4.290

Research Question 2

Which component(s) of the new teacher induction program has the least effect on teacher retention?

The second research question focused on examining the least predictive component of the new teacher induction program on teacher retention. The results of the analysis indicated that the induction component was not associated with teacher retention, indicating that when adjusting for scores in the other sections, induction scores were associated with lower teacher retention. The statistical significance of this findings was small, however, suggesting that the relationship between the Induction component and teacher retention is not robust (39 responses) and may need further examination.

Table 5

Results for Research Question 2

Variable	Estimate	St. Error	<i>t</i> -value	<i>p</i> -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.053	0.490	2.150	0.0315	--	--	--
Induction	-0.041	0.606	-0.068	0.9454	0.959	0.289	3.186
Mentor	0.373	0.371	1.006	0.3143	1.452	0.696	3.027
Principal	0.496	0.485	1.022	0.3067	1.642	0.628	4.290

Research Question 3

To what extent do each of the components of a new teacher induction program affect a new teacher's decision to remain in the school district?

The results of the data analysis indicated that the Principal component was the most predictive of teacher retention, followed by the Mentor component of the survey instrument. The Induction component was the least associated with teacher retention. The predictive effect of all three components on teacher retention, however, was not statistically significant.

Table 6

Results for Research Question 3

Variable	Estimate	St. Error	<i>t</i> -value	<i>p</i> -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.053	0.490	2.150	0.0315	--	--	--
Induction	-0.041	0.606	-0.068	0.9454	0.959	0.289	3.186
Mentor	0.373	0.371	1.006	0.3143	1.452	0.696	3.027
Principal	0.496	0.485	1.022	0.3067	1.642	0.628	4.290

Each research question was evaluated by comparing responses to a section from the new teacher induction program, each consisting of a series of questions. Due to the number of respondents being too small to achieve asymptotical normality of the sampling distribution, non-parametric statistical tests were used to test for correlation (Lindstrom, 2010). This eliminates the need for normality in the observations. Prior to statistical tests,

overall summary statistics of each survey score were provided to demonstrate the distribution of each survey scores. While hypothesis testing was performed independently for each research question, correlation among survey scores was shown to evaluate dependence among the three areas of interest.

Demographic Analysis

Prior to analyzing retention among sampled individuals, retention rates are observed across all Baltimore's new teachers for 3 years to provide baseline rates and identify relationships between teacher demographics and teachers leaving. The total number of new teachers and the number of retained teachers were observed for the 2016-2017, 2017-2018, and 2018-2019 school years. Also collected were the following data: teacher race, age group, and gender. The tables below contain yearly counts of total new teachers, retained new teachers, and the percentage retained for each year by race category, age group, and gender.

Table 7

Total Number of New Teachers and Retained Teachers by Race During the 2016-2017 School Year

Race/Ethnicity	# of New Hires	# Retained	% Retained
American Indian/Alaskan	2	1	50.0%
Asian	15	12	80.0%
Black/African American	200	149	74.5%
Hispanic/Latino	25	18	72.0%
Native Hawaiian Pacific	1	1	100.0%
Two or More Races	11	10	90.9%
White	250	180	72.0%
Total	504	371	73.6%

Table 8

Total Number of New Teachers and Retained Teachers by Age Group During the 2016-2017 School Year

Age	# of New Hires	# Retained	% Retained
<25 years old	179	141	78.8%
Between 25-30 years	134	105	78.4%
Between 30-40 years	104	69	66.3%
Between 40-50 years	64	47	73.4%
Between 50-60 years	19	7	36.8%
60+ years	4	2	50.0%
Total	504	371	73.6%

Table 9

Total Number of New Teachers and Retained Teachers by Gender During the 2016-2017 School Year

Gender	# of New Hires	# Retained	% Retained
Female	366	283	77.3%
Male	138	88	63.8%
Total	504	371	73.6%

Table 10

Total Number of New Teachers and Retained Teachers by Race During the 2017-2018 School Year

Race/Ethnicity	# of New Hires	# Retained	% Retained
American Indian/Alaskan	3	2	66.7%
Asian	19	16	84.2%
Black/African American	159	113	71.1%
Hispanic/Latino	17	12	70.6%
Native Hawaiian Pacific	0	0	N/A
Two or More Races	23	17	73.9%
White	185	137	74.1%
Total	406	297	73.2%

Table 11

Total Number of New Teachers and Retained Teachers by Age Group During the 2017-2018 School Year

Age	# of New Hires	# Retained	% Retained
<25 years old	144	113	78.5%
Between 25-30 years	103	81	78.6%
Between 30-40 years	82	63	76.8%
Between 40-50 years	42	24	57.1%
Between 50-60 years	25	14	56.0%
60+ years	10	2	20.0%
Total	406	297	73.2%

Table 12

Total Number of New Teachers and Retained Teachers by Gender During the 2017-2018 School Year

Gender	# of New Hires	# Retained	% Retained
Female	314	233	74.2%
Male	92	64	69.6%
Total	406	297	73.2%

Table 13

Total Number of New Teachers and Retained Teachers by Race During the 2018-2019 School Year

Race/Ethnicity	# of New Hires	# Retained	% Retained
American Indian/Alaskan	1	0	0.0%
Asian	31	19	61.3%
Black/African American	223	167	74.9%
Hispanic/Latino	39	27	69.2%
Native Hawaiian Pacific	0	0	N/A
Two or More Races	23	16	69.6%
White	258	196	76.0%
Total	575	425	73.9%

Table 14

Total Number of New Teachers and Retained Teachers by Age Group During the 2018-2019 School Year

Age	# of New Hires	# Retained	% Retained
<25 years old	208	160	76.9%
Between 25-30 years	133	101	75.9%
Between 30-40 years	128	97	75.8%
Between 40-50 years	70	50	71.4%
Between 50-60 years	26	13	50.0%
60+ years	10	4	40.0%
Total	575	425	73.9%

Table 15

Total Number of New Teachers and Retained Teachers by Gender During the 2018-2019 School Year

Gender	# of New Hires	# Retained	% Retained
Female	422	320	75.8%
Male	153	105	68.6%
Total	575	425	73.9%

Overall teacher retention among these years was 73.6%, 73.2%, and 73.9% respectively. This data indicated no statistical difference in teacher retention between years ($X^2 = 0.0708$; p -value = 0.9651). Retention rates differed among races, age groups and genders. Higher rates of variation in retention rates were seen from each to year for races and age groups with smaller numbers of teachers (e.g., 60+ years old, Asian). Chi-square tests were used to test whether retention rates were related to age and race.

Table 16

Chi-Square Statistics and p-Values for Tests Comparing the Relationship Between Teacher Retention Percentages and Race, Age Group, and Gender for Each Year and Combined

Year	Race	Age	Gender
2016-2017	3.391 (0.7584)	21.158 (0.0017)	8.793 (0.0030)
2017-2018	1.739 (0.8840)	27.831 (0.0001)	0.0561 (0.4538)
2018-2019	6.739 (0.2408)	15.392 (0.0088)	2.658 (0.1030)
All Years	3.634 (0.3240)	22.524 (0.0013)	3.353 (0.3585)

Table 16 contains the chi-square statistics and resulting *p*-values testing the relationships between retention proportions and races, age groups and gender. These tests were conducted comparing each individual year and across all three years combined. Age group was the only variable identified as being related to retention rate for all three school years. Based on the tables above (Tables 2, 5, and 8), it appears that younger teachers are more likely to stay as compared to older teachers. This is especially true for the highest age groups (50-60 years and 60+ years). Retirement may be a reason for this relationship. During the 2016-2017 school year, gender was also identified as significant indicating that men and women had statistically different retention rates. During this year, a larger percentage of women (77.3%) stayed as compared to men (63.8%). However, this was the only year when a significant difference occurred based on gender. Race was not identified as being related to retention for any of the studied years.

Survey Data Collection and Teacher Population

The New Teacher Survey consisted of 30 questions with responses on a four-point Likert scale from 1 to 4, with *strongly disagree* indicated by a 1, *disagree* indicated by a

2, *agree* indicated by a 3, and *strongly agree* indicated by a 4. Likert agreement scales are frequently used in surveys to measure respondents' attitudes by asking how strongly they agree or disagree with a set of questions or statements (Kumar, 2005). The survey questions were separated into three distinct section with each question belonging to a single section These sections represented:

- 1) Induction – New teachers' opinions towards the benefit of new teacher induction sessions.
- 2) Mentor - New teachers' opinions towards the benefit of mentors for each new teacher.
- 3) Principal – New teachers' opinions towards the importance of a school principal's role for their teachers.

Mean scores from questions comprising each of the three sections were calculated to better compare scores between sections with different numbers of questions. Thus, a section scores of 2 would represent a respondent that "Strongly Agrees" with every question and a score of -2 would represent a respondent who "Strongly Disagrees" with every question. A respondent with a score of 0 in a section would indicate that they roughly agree and disagree with equal numbers of questions in the section.

The resulting data consists of 39 respondents. Data was observed to determine whether any responses were illegitimate (e.g., consisting of all the same value, blank, etc.). One or more respondents left at least one answer empty. However, because results were aggregated to use means scores from each section, respondents with missing data were considered in the analysis and missing responses were considered a score of 0 (Kumar, 2005). Thus, all responses obtained from the survey were used during this

analysis. One observation was missing a response indicating the dependent variable. This observation was included in summary tables but excluded from the assessments related to teacher retention.

Table 17 shows the respondents answers to the question “Do you plan to remain a teacher in Baltimore City Schools?” This was indication of teacher retention and considered the dependent variable in this study. Out of the 39 respondents, there were 30 (76.9%) who indicated that they intended on teaching the following year, 8 (20.5%) indicated they did not plan on teaching next year and 1 (2.6%) did not answer. The percentage of teachers who planned on staying is similar to the percentage of overall retained teachers over the 3-year demographic study.

Table 17

Number of Responses and Percentages of Responses Regarding Teacher Retention

Question	Yes	No	Missing
Do you plan to remain a teacher in Baltimore City Schools	30 (76.9%)	8 (20.5%)	1 (2.6%)

Table 18

Summary Statistics for Scores from Each Survey Section

Survey	Mean	Median	SD	Min	Max
Induction	0.200	0.500	0.991	-2.000	2.000
Mentor	-0.038	-0.250	1.372	-2.000	2.000
Principle	0.687	1.000	1.081	-2.000	2.000
Overall	0.184	0.111	1.014	-1.814	2.000

Scores from each survey section and post course are shown in Table 18. The Induction section had scores ranging from -2 to 2, with a mean score of 0.200 and a

standard deviation of 0.991. The Mentor section also ranged between the lowest and highest possible scores and had a mean score of -0.038, indicating slight tendency towards disagreement across all respondents. However, this section had the highest standard deviation at 1.372. The Principal section ranged from -2 to 2 with a mean of 0.687 and a standard deviation of 1.081. This section saw the highest average score. Finally, overall scores from all questions ranged from -1.814 to 2, with an average score of 0.184.

Table 19

Pearson Correlation Among Variables

	Overall	Induction	Mentor	Principle
Overall	--	0.868***	0.908***	0.705***
Induction	--	--	0.613***	0.694***
Mentor	--	--	--	0.426**
Principle	--	--	--	--

p-value < 0.01 **

p-value < 0.001 ***

When testing the relationship between a set of variables and an outcome, it is important to evaluate the correlations between the variables in question. Pearson's correlations between the three section scores and overall score are shown in Table 19. Obvious correlation exists between overall scores and each section because the sections compose the overall scores. The Principal section has the weakest correlation with overall score (corr. = 0.705; *p*-value < 0.001) although it is still statistically significant at a 0.05 significance level. Significant correlation is also identified between each subsection. The Mentor section and Principal section have the strongest correlation (corr. = 0.694; *p*-value < 0.001). The Mentor section and Principal section of the survey have the lowest correlation, although they are still significantly correlated at a 0.05 significance level.

Research Questions

Research Question 1: Which component(s) of the new teacher induction program has the highest positive effect on teacher retention? This question focused on which component of the New Teacher survey has the highest positive effect on teacher retention? The null hypothesis associated with this is that no section of the survey has a significant relationship with teacher retention. The alternative hypothesis is that at least one section has a significant relationship with teach retention. If any section's score is statistically significant, this relationship will be quantified and compared across the analyzed components. The alternative hypothesis is that the location shift of difference in scores is different from zero (Illowsky, B. & Dean, S, 2019).

To test these hypotheses, logistic regression models are fit using a binary dependent variable that has a value of 1 if a teacher plans to continue teaching in the district and a value of 0 if they do not. Models were fit using each section score independently, and also in combination.

Table 20

Model Results for Logistic Regression Model Using Respondent's Induction Score as the Independent Variable

Variable	Estimate	St. Error	t-value	p-value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.174	0.394	2.977	0.0029	--	--	--
Induction	0.6016	0.4000	1.504	0.1325	1.821	0.826	4.029

Table 20 contains parameter estimates and associated statistical using respondents Induction score as an independent variable. The parameter for the respondent's induction score was 0.6016, indicating that on average, teacher retention was higher for respondents with high scores. However, the p -value associated with the t -test for this parameter was 0.1325, not significant at a 0.05 significance level. Thus, limited data resulted in standard deviation that is too large to affirm the variables significance. The odds ratio for this variable was 1.821, indicating that on average, a respondent was 82.1% more likely to teach in the district the following year for every point increase in their Induction score.

Table 21

Model Results for Logistic Regression Model Using Respondent's Mentor Score as the Independent Variable

Variable	Estimate	St. Error	t -value	p -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.354	0.429	3.153	0.0016	--	--	--
Mentor	0.521	0.318	1.637	0.1016	1.683	0.782	4.273

Table 21 contains parameter estimates and associated statistical tests using respondents Mentor score as an independent variable. The parameter for the respondent's induction score was 0.521, indicating that on average, teacher retention was also higher for respondents with high scores in the Mentor section. The p -value associated with the t -test for this parameter was 0.1016, which is not significant at a 0.05 significance level. It could not be confirmed whether scores on the Mentor section are statistically related to

higher teacher retention, due to limited respondents. The odds ratio for this variable was 1.683, indicating that on average, a respondent was 68.3% more likely to continue teaching in Baltimore for every point increase in their Mentor score.

Table 22

Model Results for Logistic Regression Model Using Respondent's Principal Score as the Independent Variable

Variable	Estimate	St. Error	<i>t</i> -value	<i>p</i> -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	0.875	0.4210	2.079	0.0377	--	--	--
Principle	0.642	0.3551	1.810	0.0734	1.902	0.931	3.983

Table 22 contains parameter estimates and statistical test results using respondents Principal scores as the independent variable. The parameter for the respondent's Principal score was 0.642, indicating that on average, teacher retention was higher for respondents with high scores. Again, limited data resulted in a standard deviation that was fairly large, resulting in a *p*-value that is not significant at a 0.05 significance level (*p*-value = 0.073). The odds ratio for this variable was 1.902, indicating that on average, a respondent was 93.1% more likely to teach in Baltimore the following year for every point increase in their Induction score. However, the 95% confidence interval for this ratio was 0.931 to 3.983. Because this interval contains that value 1, it cannot be determined whether this variable has a significant effect on teacher retention at a 0.05 significance level.

When considering variables independently, results were similar for each variable. Score increases in the Induction (2.897), Mentor (2.331) and Principal (3.662) section

were all correlated with increases in teacher retention. However, with only eight responses that were not planning on continuing teaching in Baltimore the following year, standard deviations were large in each model. Determining whether these variables actually have a significant effect is difficult. Of these three sections, the score in the Principal section has the highest parameter value indicating that score increases in this section are more likely to be correlated with teaching the following year. However, variables were not significant at a 0.05 significance level. This means there is no evidence that the null hypothesis in Research Questions 1 and 2 should be rejected based on the collected.

To fully understand the relationships between these variables and teacher retention, scores from all three sections were modeled simultaneously. This allows relationships among variables to be quantified after adjusting for the other variables. Table 23 contains parameter estimates from the full model considering all variables. When considering all variables, the parameter estimate for Induction score was negative indicating that when adjusting for scores in the other sections, Induction scores actually were associated with lower teacher retention. However, the estimated parameter was small and the odds ratio was 0.959 indicating that this relationship was very small. Scores on the Mentor section and Principal section were both associated with high teacher retention. However, p -values from section scores were 0.314 and 0.307 respectively indicating that neither are significant at 0.05 significance level.

Table 23

Model Results for Logistic Regression Model Using Respondent's Induction, Mentor, and Principal Section Scores as the Independent Variable

Variable	Estimate	St. Error	<i>t</i> -value	<i>p</i> -value	Odds Ratio	95% Confidence Interval for OR	
						Lower	Upper
Intercept	1.053	0.490	2.150	0.0315	--	--	--
Induction	-0.041	0.606	-0.068	0.9454	0.959	0.289	3.186
Mentor	0.373	0.371	1.006	0.3143	1.452	0.696	3.027
Principal	0.496	0.485	1.022	0.3067	1.642	0.628	4.290

Summary

The purpose of these results was to assess new teachers' opinions on which components of the New Teacher survey are indicators of teacher retention in a large urban school district. Three sections of the survey were identified: Induction, Mentor, and Principal, each relating to the importance of these components towards a teacher experience. A survey was administered and 39 new teachers responded. Scores associated with each of the three components were calculated and logistic regression was used to determine their significance in teacher retention and to quantify their effects. Scores in all three sections were correlated with high teacher retention (i.e., higher scores in a section corresponded with higher probability that a teacher would stay the following year). However, data was limited and the parameter estimates for each section were not significant at a 0.05 level. The effects of each section were still quantified and compared, and the Principal section had the largest effect on teacher retention. Chapter 5 will

discuss these results in further detail and expand on conclusions that can be drawn from this analysis.

Chapter 5: Discussion

The purpose of this research study was to assess new teachers' opinions on which components of the New Teacher survey were indicators of teacher retention in a large urban school district. Three sections of the survey were identified, which included: Induction, Mentor, and Principal, each relating to the importance of these components towards a teacher experience. A survey questionnaire was administered, and 39 new teachers responded, comprising the data for this research study.

Based on the results of the statistical analysis, scores in all three sections of the survey instrument were correlated with high teacher retention (i.e., higher scores in a section corresponded with higher probability that a teacher would stay the following year). However, data were limited, and the parameter estimates for each section were not significant at a 0.05 level. The effects of each section were still quantified and compared, and the Principal section had the largest effect on teacher retention even though this effect was not statistically significant.

This chapter will be the in-depth discussion of the research findings, which were presented in detail in the previous chapter. The sections that are included in the discussion in this chapter are the following: (a) interpretation of the findings, (b) limitations of the study, (c) recommendations, and (d) implications. The chapter ends with a conclusion for the study, summarizing the key findings and implications of the study.

Interpretation of the Findings

This section provides a discussion of the findings and the ways they confirm, disconfirm, or extend knowledge based on the current literature. The analysis and

interpretation of the findings will also be based on the context of the theoretical framework of the study. The discussion will be organized based on the research questions and the corresponding findings.

Research Question 1

The results of the analysis indicated that the Principal section of the New Teacher survey had the largest effect on teacher retention. Informed by the Activity Theory as the framework, the role of principal in the experiences of new teachers can be conceptualized as influential because of the value system and social practices that are attached to principals as sources of learning (Grossman et al., 1999). Given the lack of statistical significance of the Principal component in the findings, the suggestion is that principals do not have a significant effect on teacher retention when taken into isolation. The effect of principals on teacher retention may be more significant when taken as leadership from the entire administrative leaders.

Compared to the Mentors and Induction components, Principals remain the most predictive of teacher retention even though all three components were not statistically significant. When the findings are directly compared to the existing literature, the importance of the role of school principals in new teachers' work experience appears to be less instrumental in predicting the retention of new teachers. The literature on this particular topic suggests that the support of school administrators in general is predictive of the retention of new teachers (Grissom & Bartanen, 2019; Redding, Booker, Smith, & Desimone, 2019). However, the literature also suggested that the predictive effect of administrative support appears to be broader. Hence, even though the Principal

component had the largest effect, it was not enough to statistically predict the retention of new teachers.

Research Question 2

The results of the analysis indicated that the Induction component was negatively associated with teacher retention, indicating that when adjusting for scores in the other sections, Induction scores were associated with lower teacher retention. Informed by the theoretical framework about the role of value system and social practices (Grossman et al., 1999), it appears that induction practices do not significantly contribute to the experiences of teachers that would lead to retention. Activity Theory could not be satisfactorily used as a basis for the predicted relationship between the Induction component of the New Teacher survey and teacher retention. This suggests that Induction activities do not constitute as an adequate school-based process that can enhance teacher retention.

The role of induction in predicting positive experience among new teachers has been established in previous research, underscoring the importance of providing a robust induction program so that new teachers do not become overwhelmed with their work during the first few years (Kostadinova & Gruncheva, 2018; Paronjodi, Jusoh, & Abdullah, 2017). When the findings of the current study are compared to the existing literature, it appears that induction in itself does not significantly predict teacher retention. This lack of predictive significance could be explained by the possibility that induction will only have a significant effect on teacher retention if combined with other strategies or interventions (Kostadinova & Gruncheva, 2018).

The presence of induction activities may not in itself be sufficient in enhancing teacher retention. There is indication that quality of induction services is also an important factor that could determine its effectiveness in predicting positive teacher outcomes and experiences (Khanam & Zulifiqar, 2020). Hence, the perceived quality of an induction program could have an effect on its predictive effect on the retention of teachers.

Research Question 3

The results of the analysis indicated that the Principal component was the most predictive of teacher retention. Using the Activity Theory to explain the lack of overall predictive significance of the three components in the retention of teachers, it appears that mentorship, induction, and the leadership of principles may not be sufficient factors that predict teacher retention. The Activity Theory emphasizes the role of context in helping educators learn to become better teacher (Leont'ev, 1981; Tulviste, 1991). The findings suggest that contextual and organizational factors may not be adequate in significantly explaining teacher retention.

The results of this applied dissertation do not conform with the existing literature indicating the positive effect of the components of induction program (Khanam & Zulifiqar, 2020; Kostadinova & Gruncheva, 2018; Paronjodi et al., 2017). The lack of overall statistical significance of the findings is suggestive of the inability of the survey instrument to capture the factors that have an effect on teacher retention. However, there is also a possibility that the lack of statistical significance can be explained by the small sample size of the current study.

Implications of the Findings

The implication of the results of this applied dissertation in terms of positive social change at the individual level is the possible recognition that organizational factors are not adequate in predicting teacher retention. More efforts should be given to the interaction of the individual and organizational factors in predicting novice teachers' retention. Additional implications for policy initiatives in education, theory, and future research are discussed.

Implications for Policy Initiatives in Education

At the organizational level, the possible implication of this study is the broadening of the role of the school in enhancing teacher retention given that factors such as mentorship, principal leadership, and induction appear to be not sufficient in enhancing teacher retention. At the societal level, the implication of the results of this study is that more policies should be explored and developed in order to enhance teacher retention, going beyond the scope of induction programs (Alliance for Excellent Education, 2008).

Theoretical Implications

The theoretical implication of this study is that the Activity Theory may not be a sufficient framework for understanding the relationship between the predictive effects of mentorship, induction, the leadership of principals, and the retention of teachers. Teacher retention could be viewed more accurately when the Activity Theory is used in tandem with the Sociocultural Theory. Specific areas that may need to be complemented by the Activity Theory includes theories that could explain the motivation or resilience levels of teachers. Expanding the theoretical lens to which teacher retention can be viewed could

provide a more robust explanation for the lack of statistically significant relationship between the components of New Teacher Survey and teacher retention (Leont'ev, A. N., 1981).

Implications for Future Research

The implication of the results for practice includes the possible expansion of strategies intended to enhance teacher retention. More specifically, the lack of overall significance of the New Teacher survey in predicting teacher retention suggests the need to incorporate other factors in order to understand this relationship. Improving the quality of induction programs could also be a suggestion that could improve practice, focusing on the aspects of the program that could be modified or enhanced (Bastian & Marks, 2017).

Limitations of the Study

One limitation of this research study is the small sample size, limiting the generalizability of the study. The results of the study may not be applicable to all schools and all teachers. More specifically, the results of the study may also not be generalizable to all induction programs given the focus on a single survey using a small number of participants (Donaldson & Jackson, 2011).

In terms of validity, the small sample size of the study also limits the validity of the study. It is possible that the lack of statistical significance of the findings can be attributed to the small sample size, leading to possible errors in conclusions about the predictive relationship between the components of the New Teacher survey and teacher retention (Alliance for Excellent Education, 2008).

About reliability, the results of the study may not yield the same results if the sample size is broadened or if another demographic or social-economic setting is utilized. The findings of the study were significantly limited by the small number of participants who answered the survey questionnaire. Hence, there is a possibility that the same findings will not be derived even if the same methodological approach is used.

Recommendations

One recommendation is to increase the sample size given the current small sample size of this study. Broadening the sample size of the study will be beneficial in establishing both the validity and the reliability of the findings that have been derived from this study. Increasing the sample size could correct some of the statistical limitations of the small sample size utilized in this study (Wong, 2002).

Another recommendation is to broaden the role of principals in teacher retention to a larger set of participants that include other school administrators. Expanding the role of leadership could lead to a better understanding of how lower-level leadership in schools complement the role of principals in predicting teacher retention. Future researchers could perform a hierarchical regression in order to determine the different predictive effect different levels of leadership on teacher retention (Kumar, 2005).

To further investigate this topic of research, another recommendation is to examine different types of induction programs and activities. There is a possibility that the predictive effect of induction program on teacher retention is dependent on not only the quality but the scope and content of the said program. Future researchers could further explore the different types of induction programs and determine aspects that are predictive of teacher retention (Alliance for Excellent Education, 2008).

Conclusion

The purpose of these results is to assess new teachers' opinions on which components of the New Teacher survey are indicators of teacher retention in a large urban school district. The results of the study indicated that the Principal component was the most predictive of teacher retention, followed by the Mentor component of the survey instrument. The Induction component was the least associated with teacher retention. However, the predictive effect of all three components on teacher retention was not statistically significant.

The lack of overall statistical significance of the Principal, Induction, and Mentor components of New Teacher survey in predicting teacher retention could be explained by methodological, theoretical, and empirical research factors. The lack of statistical significance of the findings can be explained methodologically by the small sample size, limiting the confidence of the researcher about the validity of the findings. Another explanation could be the limited scope of the Activity Theory in explaining teacher retention suggesting that this phenomenon does not only involve context-based factors such as mentorship, induction, and principal leadership. Finally, the existing empirical literature on teacher retention suggests that this concept is often based on multiple and interrelated factors (Kostadinova & Gruncheva, 2018; Paronjodi et al., 2017; Redding et al., 2019).

The results of the study could be instrumental in viewing the predictors of teacher retention in a broader perspective that is beyond the anticipated facilitating contexts provided the school such as induction, mentorship, and leadership. The findings could also be instrumental in the improvement of induction programs or the possible re-

conceptualization of the contents of these programs intended for improving teacher retention.

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Appendix A
New Teacher Survey

New Teacher Survey

What year did you begin teaching in Baltimore City Public Schools?

☐ 14-15 ☐ 15-16 ☐ 16-17 ☐ 17-18 ☐ 18-19

What year(s) did you receive a “highly effective” rating?

☐ 14-15 ☐ 15-16 ☐ 16-17 ☐ 17-18 ☐ 18-19

Certification route:

☐ Traditional ☐ Teach for America ☐ Baltimore City Teacher Residency ☐ Other

Please indicate your level of agreement with the following statements as they relate to your experiences.

New Teacher Institute

1. Induction sessions assisted in easing the transition into teaching.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

2. Induction sessions provided information about the Board of Education, the CEO, and other school leaders at the district level that contributed to the understanding of specific roles and responsibilities.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

3. Induction sessions provided information about state and local benefits and salaries.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

4. Induction sessions provide information regarding the expectations of the Baltimore City Public Schools Teacher Evaluation Process.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

5. Induction sessions provide information regarding state policies regarding COMAR Regulations.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

6. Teacher effectiveness is strengthened through training in effective classroom management techniques.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

7. Effectiveness for beginning teachers is enhanced through training in teaching techniques.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

8. The effectiveness of beginning teachers is improved through detailed sharing of the district’s mission, procedures, policies, and goals.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

9. The effectiveness of beginning teachers is improved through participation in cooperative activities with other new teachers.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

10. The effectiveness of beginning teachers is improved through instruction in effective lesson planning using the Baltimore City Public Schools Instructional Framework.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Mentor Support

1. Mentors provided support through regularly scheduled meetings.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

2. Mentors provided encouragement during the first weeks of school.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

3. Mentors introduced beginning teachers to key personnel at the school.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

4. Mentors provide assistance in the development of the Individual Development Plan (IDP).

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

5. Mentors helped me, as a beginning teacher, understand professional expectations concerning classrooms, grade level, and school responsibilities.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

6. Mentors helped me, as a beginning teacher, learn how to develop effective relationships with students, parents, and colleagues.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

7. Mentors help beginning teachers identify solutions to problems and concerns related to school.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

8. Mentors assist beginning teachers in understanding the school community and the available resources to meet the varying needs of students.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

9. Mentoring activities such as informal conferences, observations, learning opportunities at schools, and other activities such as the promotion of reflective practice help the beginning teacher to develop as an educator.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

10. The mentoring relationship helps the beginning teacher develop interpersonal and relationship skills.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

11. The mentoring relationship helps the beginning teacher set goals for continued professional growth.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

12. The mentoring relationship assists the beginning teacher in improving the use of effective instructional strategies.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Principal Support

1. The principal provides a school orientation session prior to the start of school.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

2. The principal provides introductions of staff members that are key to operations at the school level.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

3. The principal, and/or his/her designee, formally observes instruction a minimum of two times throughout the course of the school year.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

4. The principal provides prompt feedback following observations that encouraged and challenged the beginning teacher to improve classroom instruction and delivery.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

5. The principal provides support with classroom management when needed.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Teacher Retention

1. The new teacher induction program has provided the tools needed for me to be a “highly effective” teacher.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

2. The new teacher induction program has positively impacted my decision to stay with Baltimore City Public Schools.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

3. The new teacher induction program has enabled me to have a positive impact on student achievement.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Appendix B

12-15-2017 MOU Between Lisa M. Smith-Sherrod and Baltimore City Public Schools

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE BALTIMORE CITY BOARD OF SCHOOL COMMISSIONERS
AND
Lisa M. Smith-Sherrod

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made this 25th day of September 2017, by and between the Baltimore City Board of School Commissioners ("Board") for the Baltimore City Public Schools ("City Schools") and Partner/Vendor Name ("Vendor").

WHEREAS, the Vendor and the Board wish to enter into a memorandum of understanding to conduct a research study entitled, "The Relationship Between Teacher Preparation and Teacher Retention."

NOW THEREFORE, THIS MOU WITNESSETH THAT, in consideration of the mutual promises and covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

A. TERM

The term of this MOU shall begin on November 6, 2017 and end on May 6, 2018, unless sooner terminated in accordance with this MOU.

The parties may renew this agreement for an additional term upon the written agreement of the parties within 60 days prior to the expiration of this MOU.

B. OBLIGATIONS OF THE PARTIES

During the term of this Agreement the Vendor and the Board shall perform such obligations which are set forth in the attached document which is entitled Roles and Responsibilities, and is made a part of this Agreement (Attachment I to this Agreement).

C. COMPENSATION

No compensation shall be provided to either party. If there are any costs associated with the obligations of this MOU, each party shall bear their own costs and/or expenses.

D. DOCUMENTATION AND RECORD KEEPING

The Vendor shall maintain documentation as necessary to prove that it is meeting its obligations under this MOU and such other standards as apply. The Vendor shall maintain such documentation for a period of three (3) years after the termination of this MOU, or in the alternative, shall submit such documentation to the Board within 30 days of the expiration date of this MOU. At any time during normal business hours, and as deemed necessary by the Board, the Vendor shall make available to the Board any such documentation for inspection. Copies of any School Records are the property of the Board and shall be returned by the Vendor to the Board upon the termination of this MOU.

E. CRIMINAL BACKGROUND CHECK.

It is the responsibility of the Vendor to make certain that its employees, agents, volunteers, and contractors and any instructors who have contact with students be fingerprinted and have a background check in compliance with Title 5, Subtitle 5, Part VI, of the Family Law Article of the Maryland Code.

1. Employees Having Direct Contact with Students:

Any and all current and future employees of the Vendor who have direct contact with students must have a criminal background check and fingerprinting conducted by the Human Resources Department of the City Schools before beginning work in a City School. Previous background checks will not be accepted. The fee for the background check shall be paid by check or money order at the time the fingerprinting is performed. No employee can begin work in a City School until results have been received. Violation of this provision may result in Termination for Cause.

2. Employment of Sex Offenders:

The Vendor shall at all times be compliant with the Criminal Procedure Article of Annotated Code of Maryland Section 11-722 that states that a person who enters a contract with a County Board of Education or a nonpublic school may not knowingly employ an individual to work at a school if the individual is a registered sex offender. If a registered sex offender is employed by the Vendor, they are prohibited from assigning that employee to perform management, delivery, installation, repair, construction or any other type of services on any City Schools property. Violation of this provision may result in Termination for Cause.

F. STUDENT'S EDUCATION/MEDICAL/PSYCHOLOGICAL RECORDS/CONSENTS

Prior to dissemination or review of records, Vendor and its employees, agents, volunteers and contractors shall maintain the confidentiality of all medical, psychological, and student records in compliance with federal and state laws.

G. CONFIDENTIALITY

Prior to dissemination or review of records, Vendor/Partner and its employees, agents, volunteers and contractors shall maintain the confidentiality of all medical, psychological, and student records in compliance with federal and state laws. Specifically, Vendor/Partner acknowledges its responsibility to ensure compliance with the confidentiality provisions of the Family Educational Records Privacy Act (34 CFR §99); The Health Insurance Portability and Accountability Act of 1996 (HIPAA) 45 CFR Part 160 and Part 164, Subparts A and E, and Code of Maryland Regulations §13A.08, with respect to school records provided by the Board, if applicable.

Any confidential information provided by City Schools to Vendor/Partner, including all copies thereof must be used by Vendor/Partner only as permitted by this Agreement and only for the purposes herein described. Such information shall not be disseminated or disclosed to any third party, not a party to this Agreement, without the express written consent of City Schools, and can only be done so in accordance with applicable privacy laws Vendor/Partner agrees to return to City Schools all such information within 15 days of the expiration of termination of this Agreement; or with the express consent of City Schools,

Revision, March 13, 2015

Vendor/Partner may destroy such information within 15 days of termination or expiration of this Agreement, certifying to City Schools in writing that the information has been destroyed.

Protection of Student Records:

Vendor/Partner and its affiliates or subcontractors, at their own expense, have a duty to and shall protect from disclosure any and all Student Records which they come to possess or control, wherever and however stored or maintained, in a commercially reasonable manner in accordance with current industry standards.

Each Vendor/Partner or its affiliates or subcontractors shall implement and maintain a comprehensive data - security program for the protection of Student Records whether the Records are stored electronically and/or in hard copy. The safeguards contained in such program shall be consistent with and comply with the safeguards for protection of Student Records, and information of a similar character, as set forth in all applicable federal and state law and written policy of the City Schools or Maryland State Board of Education ("MSBE") concerning the confidentiality of Student Records. Such data-security program shall include, but not be limited to, the following:

- 1) A process for reviewing policies and security measures at least annually;
- 2) A security policy for employees related to the storage, access and transportation of data containing Student Records;
- 3) Reasonable restrictions on access to records containing Student Records, including access to any locked storage where such records are kept;
- 4) Creating secure access controls to Student Records, including but not limited to passwords; and
- 5) Encrypting of Student Records that are stored on laptops, portable devices or being transmitted electronically.

The Vendor/Partner and its affiliates shall notify City Schools as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any Student Records which Vendor/Partner or its affiliates possess or control have been subject to a Student Records breach.

The Vendor/Partner shall incorporate the requirements of this Section in all subcontracts requiring each of its affiliate to safeguard Student Records in the same manner as provided for in this Section.

Nothing in this Section shall supersede in any manner Vendor/Partner's or its affiliate's obligations pursuant to HIPAA, FERPA or the provisions of this Contract concerning the obligations of the Partner as a service provider to City Schools.

H. DATA DISSEMINATION

For purposes of publicity, advertising, or news release in any form of medium, the parties shall confer with one another regarding the time, manner and content of appropriate data dissemination, results of studies or reports, or other materials, and consent to such dissemination.

I. MUTUAL INDEMNIFICATION

Neither party shall assume any obligation to indemnify, hold harmless, pay attorneys' fees or damages that may arise from or in any way be associated with the performance or operation of this agreement.

Furthermore, the liability of the parties shall be governed by the terms and provisions of the applicable Tort Claims Act. Notwithstanding the foregoing, the Board will not defend or indemnify the vendor/partner in cases where any losses, expenses, or damages are caused by vendor/partner's own gross negligence or willful misconduct. This provision shall not be construed as a waiver of either party's rights under the doctrine of sovereign immunity, if applicable.

J. APPLICABLE LAW

This MOU shall be construed according to Maryland law and subject to the jurisdiction of its courts. Furthermore, the parties agree that any suits or actions brought by either party against the other shall be filed in a court of competent jurisdiction in Baltimore City.

K. COMPLIANCE WITH LAWS.

Both parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations applicable to the services to be rendered under this Agreement. Any violation of these laws, statutes, ordinances, rules, or regulations constitutes a breach of this Agreement and entitles the non-breaching party to terminate this Agreement immediately upon delivery of written notice of termination to the breaching party.

L. NON-DISCRIMINATION.

Vendor/Partner shall not, in its conduct and performance under this Agreement, discriminate against any employee, applicant for employment, independent professional or any other person because of race, color, religious creed, ancestry, national origin, age, sex, sexual orientation, sexual identity, disability or handicap. Vendor/Partner shall comply with all state and federal laws prohibiting discrimination in hiring or employment opportunities. In the event of the Vendor/Partner's noncompliance with this non-discrimination clause or with any such laws, City Schools may terminate or suspend this agreement in whole or in part, and the Vendor/Partner may be declared temporarily ineligible for further contracts. City Schools reserves the right to impose any and all other legal sanctions and remedies available for violating this clause.

M. PROFESSIONALS

In the event the services to be provided by Vendor/Partner must by law be provided by individuals who are licensed and/or certified, Vendor/Partner shall only assign individuals to provide services under this Agreement who are licensed and/or certified in accordance with the law. Additionally, Vendor/Partner shall only assign individuals who have been credentialed by the Vendor/Partner to provide the specific professional services required by this Agreement. All such individuals assigned by Vendor/Partner to provide services shall maintain their license and/or certification in good standing (not under review or subject to suspension, credentials current) during the entire term of this Agreement. Vendor/Partner shall, prior to providing services, submit documentation that the individuals assigned to provide services are properly credentialed and are licensed and/or certified to the Director of Materials, 200 E. North Avenue, Baltimore, Maryland 21202.

N. TERMINATION FOR CONVENIENCE

Either party may terminate this MOU by giving to the other party written notification thereof at least ten (10) days prior to termination.

O. ENTIRE AGREEMENT

This MOU consists of this Agreement, addenda, attachments, supplemental documents issued prior to execution other documents listed in this Agreement, and modifications and amendments issued after execution of this Agreement. The MOU constitutes the entire and full understanding between the parties hereto and neither party shall be bound by any representations, statements, promises or agreements not expressly set forth herein.

P. INTERPRETATION

The Agreement shall not be construed or interpreted for or against any party hereto because the party drafted or caused that party's legal representative to draft any of its provisions. Any heading of the paragraphs in this MOU is inserted for convenience and reference only and shall be disregarded in construing or interpreting this MOU. When interpreting the Agreement, the terms of this Agreement shall be controlling unless, specifically changed by an Amendment signed by the parties, all other documents shall be subordinate to the general terms of this Agreement.

Q. SEVERABILITY

Each provision of this MOU shall be deemed a separate, severable, and independently enforceable provision. The invalidity or breach of any provision shall not cause the invalidity or breach of the remaining provisions or of the MOU, which shall remain in full force and effect.

R. MODIFICATIONS AND AMENDMENTS

Any and all modifications to the terms of this Agreement must be by a written Amendment, signed and approved by all parties.

S. ASSIGNMENT

This Agreement shall be binding upon the parties hereto and their successors and assigns, except that neither shall assign their rights, duties or responsibilities set forth in this MOU without the express written consent of the other party.

T. CONTRACT MONITOR

Communications for the purposes of billing, payment and submission of documentation required by this Agreement shall be between the Board's Contract Monitor who is as follows:

For the Board:

Ike DiIorio
Name
Manager, External Research
Title
200 E. North Ave
Address
Baltimore MD 21202
City, State, Zip Code
443-642-4032
Phone Number
idiiorio@bcps.k12.md.us
E-mail Address

For the Vendor:

Lisa M. Smith-Sherrod
Name
Doctoral Candidate
Title
1 Weyanoke Court
Address
Pikesville, MD 21208
City, State, Zip Code
443-506-0605
Phone Number
lmsmith01@bcps.k12.md.us
E-mail Address


With a copy to:
Director of Materials Management
200 E. North Avenue, 4th Floor
Baltimore, Maryland 21202

IN WITNESS WHEREOF, the parties have signed and sealed this Agreement as of the day first written above.

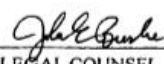
BALTIMORE CITY BOARD OF SCHOOL
COMMISSIONERS

BY: 
Sonja B. Santelises, Ed.D.
Chief Executive Officer

PARTNER/VENDOR NAME

BY: 
Lisa M. Smith-Sherrad
Please print name

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY THIS 5th
DAY OF December, 20 17.


OFFICE OF LEGAL COUNSEL
John E. Burke

APPROVAL OF THE DIRECTOR OF
MATERIALS MANAGEMENT *JD*


Jeffrey D. Parker

Title of Study: The Relationship between Teacher Preparation and Teacher Retention

Purpose of the Study

The purpose of this quantitative study is to examine the relationship between teacher preparation (focusing on induction) and teacher retention in "highly effective" elementary teachers with 5 years or fewer experience in a large urban school district.

Research Questions

Question 1: What is the relationship between teacher retention and a new teacher's induction, as measured by courses/workshops offered by the district between hiring and the first day of work?

Question 2: To what extent are teachers who participated in traditional education programs more likely to remain in teaching than teachers who participated in non-traditional programs?

Question 3: What reasons do "highly effective" new teachers give for staying in the profession?

The following data fields will be needed in order answer research questions listed above: job title of teacher from the following school years 12-13, 13-14, 14-15 and 16-17 that maintained a Highly Effective rating throughout their employment with City; teacher sex; teacher age; and teacher race.

ROLES AND RESPONSIBILITIES

Roles and Responsibilities of the Vendor:

Ms. Smith will collaborate with City Schools Human Capital Office (HC) to obtain specific information in regards to teacher retention, induction, professional development, and evaluation rating. Data collected will be used in the analysis and writing of Ms. Smith dissertation. When the dissertation is completed, Ms. Smith will provide a copy of the completed dissertation to the School Board.

Roles and Responsibilities of City Schools:

City schools Human Capital Office (HC) will provide Ms. Smith with teacher-level retention, induction, evaluation rating, and demographic data files, and any such information provided by City schools to vendor shall be de-identified and shall contain no teachers name or any other identifiable information.

Appendix C

9-14-2018 MOU Between Lisa M. Smith-Sherrod and Baltimore City Public Schools

BALTIMORE CITY
PUBLIC SCHOOLS

Catherine E. Pugh
Mayor, City of Baltimore

Cheryl Casciani
*Chair, Baltimore City Board of
School Commissioners*

Dr. Sonja Brookins Santelises
Chief Executive Officer

Rectangular Snip

September 14, 2018

Lisa M. Smith-Sherrod
1 Weyanoke Court
Pikesville, MD 21208

Enclosed is the fully executed Memorandum of Understanding (MOU) between Baltimore City Public Schools and you.

Please contact Ms. Patricia Graff at 410-396-8846 if you have any questions.

Sincerely,



Jeffrey Parker
Director of Materials Management

Enclosure

C: Ike Diibor
Patricia Graff

**MEMORANDUM OF UNDERSTANDING
BETWEEN
THE BALTIMORE CITY BOARD OF SCHOOL COMMISSIONERS
AND
LISA M. SMITH-SHERROD**

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made this 8 day of August 2018, by and between the Baltimore City Board of School Commissioners ("Board") for the Baltimore City Public Schools ("City Schools") Lisa M. Smith-Sherrod ("Vendor").

WHEREAS, the Vendor and the Board wish to enter into a memorandum of understanding regarding exchange of data for a project titled, *"The Effects of New Teacher Induction Programs on New Teacher Retention in Urban School Districts."*

NOW THEREFORE, THIS MOU WITNESSETH THAT, in consideration of the mutual promises and covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

A. TERM

The term of this MOU shall begin on August 15, 2018, and end on June 30, 2019 unless sooner terminated in accordance with this MOU.

The parties may renew this agreement for an additional term upon the written agreement of the parties within 60 days prior to the expiration of this MOU.

B. OBLIGATIONS OF THE PARTIES

During the term of this Agreement the Vendor and the Board shall perform such obligations which are set forth in the attached document which is entitled Roles and Responsibilities, and is made a part of this Agreement (Attachment I to this Agreement).

C. COMPENSATION

No compensation shall be provided to either party. If there are any costs associated with the obligations of this MOU, each party shall bear their own costs and/or expenses.

D. DOCUMENTATION AND RECORD KEEPING

The Vendor shall maintain documentation as necessary to prove that it is meeting its obligations under this MOU and such other standards as apply. The Vendor shall maintain such documentation for a period of three (3) years after the termination of this MOU, or in the alternative, shall submit such documentation to the Board within 30 days of the expiration date of this MOU. At any time during normal business hours, and as deemed necessary by the Board, the Vendor shall make available to the Board any such documentation for inspection. Copies of any School Records are the property of the Board and shall be returned by the Vendor to the Board upon the termination of this MOU.

E. CRIMINAL BACKGROUND CHECK.

It is the responsibility of the Vendor to make certain that its employees, agents, volunteers, and contractors and any instructors who have contact with students be fingerprinted and have a background check in compliance with Title 5, Subtitle 5, Part VI, of the Family Law Article of the Maryland Code.

1. Employees Having Direct Contact with Students:

Any and all current and future employees of the Vendor who have direct contact with students must have a criminal background check and fingerprinting conducted by the Human Resources Department of the City Schools before beginning work in a City School. Previous background checks will not be accepted. The fee for the background check shall be paid by check or money order at the time the fingerprinting is performed. No employee can begin work in a City School until results have been received. Violation of this provision may result in Termination for Cause.

2. Employment of Sex Offenders:

The Vendor shall at all times be compliant with the Criminal Procedure Article of Annotated Code of Maryland Section 11-722 that states that a person who enters a contract with a County Board of Education or a nonpublic school may not knowingly employ an individual to work at a school if the individual is a registered sex offender. If a registered sex offender is employed by the Vendor, they are prohibited from assigning that employee to perform management, delivery, installation, repair, construction or any other type of services on any City Schools property. Violation of this provision may result in Termination for Cause.

F. STUDENT'S EDUCATION/MEDICAL/PSYCHOLOGICAL RECORDS/CONSENTS

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G. CONFIDENTIALITY

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Any confidential information provided by City Schools to Vendor/Partner, including all copies thereof must be used by Vendor/Partner only as permitted by this Agreement and only for the purposes herein described. Such information shall not be disseminated or disclosed to any third party, not a party to this Agreement, without the express written consent of City Schools, and can only be done so in accordance with applicable privacy laws Vendor/Partner agrees to return to City Schools all such information within 15 days of the expiration of termination of this Agreement; or with the express consent of City Schools,

Revision, March 13, 2015

Vendor/Partner may destroy such information within 15 days of termination or expiration of this Agreement, certifying to City Schools in writing that the information has been destroyed.

Protection of Student Records:

Vendor/Partner and its affiliates or subcontractors, at their own expense, have a duty to and shall protect from disclosure any and all Student Records which they come to possess or control, wherever and however stored or maintained, in a commercially reasonable manner in accordance with current industry standards.

Each Vendor/Partner or its affiliates or subcontractors shall implement and maintain a comprehensive data - security program for the protection of Student Records whether the Records are stored electronically and/or in hard copy. The safeguards contained in such program shall be consistent with and comply with the safeguards for protection of Student Records, and information of a similar character, as set forth in all applicable federal and state law and written policy of the City Schools or Maryland State Board of Education ("MSBE") concerning the confidentiality of Student Records. Such data-security program shall include, but not be limited to, the following:

- 1) A process for reviewing policies and security measures at least annually;
- 2) A security policy for employees related to the storage, access and transportation of data containing Student Records;
- 3) Reasonable restrictions on access to records containing Student Records, including access to any locked storage where such records are kept;
- 4) Creating secure access controls to Student Records, including but not limited to passwords; and
- 5) Encrypting of Student Records that are stored on laptops, portable devices or being transmitted electronically.

The Vendor/Partner and its affiliates shall notify City Schools as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any Student Records which Vendor/Partner or its affiliates possess or control have been subject to a Student Records breach.

The Vendor/Partner shall incorporate the requirements of this Section in all subcontracts requiring each of its affiliate to safeguard Student Records in the same manner as provided for in this Section.

Nothing in this Section shall supersede in any manner Vendor/Partner's or its affiliate's obligations pursuant to HIPAA, FERPA or the provisions of this Contract concerning the obligations of the Partner as a service provider to City Schools.

H. DATA DISSEMINATION

For purposes of publicity, advertising, or news release in any form of medium, the parties shall confer with one another regarding the time, manner and content of appropriate data dissemination, results of studies or reports, or other materials, and consent to such dissemination.

I. MUTUAL INDEMNIFICATION

Neither party shall assume any obligation to indemnify, hold harmless, pay attorneys' fees or damages

Revision, March 13, 2015

that may arise from or in any way be associated with the performance or operation of this agreement. Furthermore, the liability of the parties shall be governed by the terms and provisions of the applicable Tort Claims Act. Notwithstanding the foregoing, the Board will not defend or indemnify the vendor/partner in cases where any losses, expenses, or damages are caused by vendor/partner's own gross negligence or willful misconduct. This provision shall not be construed as a waiver of either party's rights under the doctrine of sovereign immunity, if applicable.

J. APPLICABLE LAW

This MOU shall be construed according to Maryland law and subject to the jurisdiction of its courts. Furthermore, the parties agree that any suits or actions brought by either party against the other shall be filed in a court of competent jurisdiction in Baltimore City.

K. COMPLIANCE WITH LAWS.

Both parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations applicable to the services to be rendered under this Agreement. Any violation of these laws, statutes, ordinances, rules, or regulations constitutes a breach of this Agreement and entitles the non-breaching party to terminate this Agreement immediately upon delivery of written notice of termination to the breaching party.

L. NON-DISCRIMINATION.

Vendor/Partner shall not, in its conduct and performance under this Agreement, discriminate against any employee, applicant for employment, independent professional or any other person because of race, color, religious creed, ancestry, national origin, age, sex, sexual orientation, sexual identity, disability or handicap. Vendor/Partner shall comply with all state and federal laws prohibiting discrimination in hiring or employment opportunities. In the event of the Vendor/Partner's noncompliance with this non-discrimination clause or with any such laws, City Schools may terminate or suspend this agreement in whole or in part, and the Vendor/Partner may be declared temporarily ineligible for further contracts. City Schools reserves the right to impose any and all other legal sanctions and remedies available for violating this clause.

M. PROFESSIONALS

In the event the services to be provided by Vendor/Partner must by law be provided by individuals who are licensed and/or certified, Vendor/Partner shall only assign individuals to provide services under this Agreement who are licensed and/or certified in accordance with the law. Additionally, Vendor/Partner shall only assign individuals who have been credentialed by the Vendor/Partner to provide the specific professional services required by this Agreement. All such individuals assigned by Vendor/Partner to provide services shall maintain their license and/or certification in good standing (not under review or subject to suspension, credentials current) during the entire term of this Agreement. Vendor/Partner shall, prior to providing services, submit documentation that the individuals assigned to provide services are properly credentialed and are licensed and/or certified to the Director of Materials, 200 E. North Avenue, Baltimore, Maryland 21202.

N. TERMINATION FOR CONVENIENCE

Either party may terminate this MOU by giving to the other party written notification thereof at least

ten (10) days prior to termination.

O. ENTIRE AGREEMENT

This MOU consists of this Agreement, addenda, attachments, supplemental documents issued prior to execution other documents listed in this Agreement, and modifications and amendments issued after execution of this Agreement. The MOU constitutes the entire and full understanding between the parties hereto and neither party shall be bound by any representations, statements, promises or agreements not expressly set forth herein.

P. INTERPRETATION

The Agreement shall not be construed or interpreted for or against any party hereto because the party drafted or caused that party's legal representative to draft any of its provisions. Any heading of the paragraphs in this MOU is inserted for convenience and reference only and shall be disregarded in construing or interpreting this MOU. When interpreting the Agreement, the terms of this Agreement shall be controlling unless, specifically changed by an Amendment signed by the parties, all other documents shall be subordinate to the general terms of this Agreement.

Q. SEVERABILITY

Each provision of this MOU shall be deemed a separate, severable, and independently enforceable provision. The invalidity or breach of any provision shall not cause the invalidity or breach of the remaining provisions or of the MOU, which shall remain in full force and effect.

R. MODIFICATIONS AND AMENDMENTS

Any and all modifications to the terms of this Agreement must be by a written Amendment, signed and approved by all parties.

S. ASSIGNMENT

This Agreement shall be binding upon the parties hereto and their successors and assigns, except that neither shall assign their rights, duties or responsibilities set forth in this MOU without the express written consent of the other party.

T. CONTRACT MONITOR

Communications for the purposes of billing, payment and submission of documentation required by this Agreement shall be between the Board's Contract Monitor who is as follows:

For the Board:

Ike DiBOR
Name
Manager, External Research
Title
200 E. North Avenue
Address
Baltimore MD 21202
City, State, Zip Code
443-642-4032
Phone Number
IediBOR@BCPS.K12.MD.US
E-mail Address

For the Vendor:

Lisa M. Smith-Sherrod
Name
Doctoral Candidate
Title
1 Weyanoke Court
Address
Pikesville, MD 21208
City, State, Zip Code
443-506-0605
Phone Number
lmsmith01@bcps.k12.md.us
E-mail Address

With a copy to:
Director of Materials Management
200 E. North Avenue, 4th Floor
Baltimore, Maryland 21202

IN WITNESS WHEREOF, the parties have signed and sealed this Agreement as of the day first written above.

BALTIMORE CITY BOARD OF SCHOOL
COMMISSIONERS

BY: *Sonja B. Santelises*
Sonja B. Santelises, Ed.D
Chief Executive Officer and

PARTNER/VENDOR NAME

BY: *Lisa M. Smith-Sherrard*
Lisa M. Smith-Sherrard
Please print name

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY THIS 22nd
DAY OF August, 20 18.

John E. Smith
OFFICE OF LEGAL COUNSEL

APPROVAL OF THE DIRECTOR OF
MATERIALS MANAGEMENT *pe*

Jeffrey D. Parker
Jeffrey D. Parker

ATTACHMENT I

Title of Study: The Effects of New Teacher Induction Programs on New Teacher Retention in Urban School Districts

Purpose of the Study

The purpose of this quantitative study is to examine the effects of new teacher induction programs on new teacher retention in urban Highly Effective teachers with 5 or fewer years' experience.

Research Questions

Question 1: What component(s) of the new teacher induction program have the highest effect on teacher retention?

Question 2: To what extent do the components of a new teacher induction program, i.e. Summer Teacher Institute, Site-Based Mentoring, and on-going Professional Learning affect a new teacher's decision to remain in the school district?

ROLES AND RESPONSIBILITIES

Roles and Responsibilities of the Vendor:

Ms. Smith will collaborate with City Schools Human Capital Office (HC) to obtain specific information in regards to teacher retention, induction, professional development, and evaluation rating. Data collected will be used in the analysis and writing of Ms. Smith dissertation. When the dissertation is completed, Ms. Smith will provide a copy of the completed dissertation to the School Board.

The following data fields will be needed in order answer research questions listed above: job title of teacher from the 17-18 school year that were part of the new teacher cohort in City Schools; teacher sex; teacher age; and teacher race. Additionally, access to email a survey to all job title of teachers within the following new teacher cohorts in the school years: 13-14, 14-15, 16-17, 17-18 and 18-19.

In the previous MOU, the researchers was able to use the new teacher cohort data that was supplied by the district to present background information about the district for her proposal. The data for 17-18 has been requested by her dissertation chair, so that the information will be current and up to date.

The previous MOU expired prior to the completion of the 17-18 school year, so this new MOU is needed to attain this additional data set. An IRB renewal application will be submitted to OAA for permission to continue this research study for SY1819 and to distribute teacher survey to new teachers for the cohort years 13-14, 14-15, 15-16, 16-17, and 17-18.

Roles and Responsibilities of City Schools:

City schools Human Capital Office (HC) will provide Ms. Smith demographic data files, and permission and access to email the survey. Any such information provided by City schools to vendor shall be de-identified and shall contain no teachers name or any other identifiable information.


• Rectangular Snip

Appendix D

4-7-2020 MOU Between Lisa M. Smith-Sherrod and Baltimore City Public Schools

**REQUEST FOR SIGNATURE:
MOU**

TO: Sonja B. Santelises, Ed.D., Chief Executive Officer

FROM: Theresa Jones, Chief Achievement and Accountability Officer 

DATE: April 7, 2020

MOU WITH: Lisa M. Smith-Sherrod

PURPOSE/SERVICES: To modify an existing data sharing agreement between Lisa M. Smith-Sherrod and Baltimore City Public Schools (City Schools). The amendment would allow Ms. Smith-Sherrod to use teacher-level data files provided by City Schools to complete a research project titled, *"The Effects of New Teacher Induction Programs on New Teacher Retention in Urban School Districts."* The project would involve the sharing of information between the parties in a manner consistent with the Family Education and Privacy Act of 1974 (FERPA). The term of the MOU is for 8 months and commences on November 1, 2019 through June 30, 2020. The contract monitor for the MOU is Ike Diibor.

LENGTH: November 1, 2019 through June 30, 2020

BOARD APPROVAL: N/A- Memorandum of Understanding

CONTRACT MONITOR Ike Diibor
443-642-4032

CONTACT: Procurement
410-396-8757

**FIRST
 AMENDMENT TO
 MEMORANDUM OF UNDERSTANDING
 BETWEEN
 THE BALTIMORE CITY BOARD OF SCHOOL
 COMMISSIONERS
 AND LISA M. SMITH-SHERROD**

THIS FIRST AMENDMENT is made as of 16th day of March 2020, by and between the Baltimore City Board of School Commissioners (the "Board"), and Lisa M. Smith-Sherrod (the "Vendor").

WHEREAS, the Board and Vendor executed a Memorandum of Understanding on November 11, 2019; and

WHEREAS, The Board desires to extend the term of the Memorandum of Understanding;

WHEREAS, the Board and Vendor now desire to enter into this First Amendment to achieve said purpose.

NOW, THEREFORE, the Board and Vendor agree to amend the Agreement as follows:

1. The first paragraph of Addendum 1 shall be amended as follows:

The vendor is requesting individual teacher response data from New Teacher Center (NTC) survey administered by Human Capital Office to new teacher cohorts in SY1718 and SY1819.

The vendor is also asking Human Capital Office to release teacher retention data from SY1718 through SY1920. The data should be scrubbed of personal identifier and would be used by the vendor to examine the correlation between teacher retention and teacher induction program in City Schools.

This request is made because new teacher survey created and distributed by the vendor in 2020 didn't yield to high response rate thereby resulting in a biased sample for the approved research study.

2. Except as specifically amended herein, all the terms and conditions set forth in the Agreement are unaffected and remain in full force and effect.

THIS SPACE INTENTIONALLY BLANK

IN WITNESS WHEREOF, the parties have signed and sealed this Agreement as of the day first written above.

BAITIMORE CITY BOARD OF SCHOOL
COMMISSIONERS

DocuSigned by:

Sonja Santelises

BY:

33C6198E0E19467...

Sonja B. Santelises, Ed.D.
Chief Executive Officer

PARTNER/VENDOR NAME:

BY:

Please print name

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY THIS 6th
DAY OF April, 20 20.

John Burke
OFFICE OF LEGAL COUNSEL

APPROVAL OF THE DIRECTOR OF
MATERIALS MANAGEMENT

DocuSigned by:

Joseph F. Vogel

7C8B0506288D433...

Joseph F. Vogel
Interim Director for Procurement

Appendix E

Letter of Invitation to Participate in Study

Letter of Invitation to Participate in Study for New Teachers
NOVA Southeastern University

INSERTATION OF LINK FOR SURVEY

Lisa M. Smith is a doctoral student at NOVA Southeastern University and inviting you to participant in this research study. The title of this study is The Relationship Between Preparation and Teacher Retention.

Your participation in this study will involve completing a brief and anonymous electronic survey by following the link at the top of this page. This survey should only take about ten minutes of your time.

Your participation in this study will not benefit you directly. However, your participation and feedback will assist school district leaders to better understand the importance of effective induction programs.

If you choose to participate, please click on the link at to the top of this letter. You will be directed how to proceed. However, you may choose not to participate. If you decide not to participate, please click the appropriate button at the top of this letter and simply answer the first question.

If you have question about this study, feel free to contact me at 443-506-0605. If you have questions about your rights as a research participant, you can call NOVA Southeastern University and speak with Dr. _____ at _____.

Thank you in advance for your assistance.