

ABSTRACT

Title of Document: EXAMINING THE IMPACT OF PEER ASSISTANCE AND REVIEW ON TEACHERS' PRACTICE

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Researchers, practitioners, and policy makers widely recognize teacher quality as the school-related factor that has the largest influence on a child's academic performance. While research has documented the central role that teacher quality plays in promoting student achievement, studies have not yet yielded a consensus on the factors that enhance teacher quality. Understanding which professional development practices prove most effective in addressing district needs can potentially impact how district leaders look to

improve both teacher performance and teacher retention. Districts must assess the degree to which existing teacher development activities are helping teachers attain key skills.

The purpose of this descriptive study was to examine the impact of Peer Assistance and Review (PAR) on the teaching practices of non-tenured teachers as assessed by the teacher observation tool, Framework for Teaching (FfT). This study sought to identify whether there was a statistically significant difference in ratings from a teacher's first to last formal observation after participating in PAR. In this mixed methods study, quantitative methods were used to examine formal observation data in order determine whether participation in PAR impacted the performance ratings of teachers. Furthermore, qualitative methods, in the form of interviews, were used to gain insight on a teacher's perception about their participation in PAR and how it has impacted their instructional practices.

Results from this study confirm that there was a statistically significant difference in first to last formal observation ratings recorded for all of the eight instructional components tested. Furthermore, data showed that participating teachers believe that their participation in PAR positively influenced the improvement of their instructional practices.

This study enriches the literature on Peer Assistance and Review and the impact the program can have on teachers.

EXAMINING THE IMPACT OF PEER ASSISTANCE AND REVIEW ON TEACHERS'
PRACTICE

by

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Dedication

“My grace is sufficient for thee: for my strength is made perfect in weakness.

2 Corinthians 12:9

This effort is dedicated to those that have helped me to learn the most important lessons in my life. In loving memory of Eva B. James and David G Curry Sr. Mom-Mom, you taught me to never settle and to walk with my head held high at all times. To my father, “I’m still trying to raise the bar”. To my mother who has been my rock throughout this journey we call life. We’ve come a long way!!!! You always told me that there is nothing too great if we have faith in God and willing to put in the work. Lastly, I dedicate this to my three sons Dre, David and Daniel. Thank you for your love. All that I do is for you. Remember, we never speak on what we can’t do. Leaders do what they know, not what they’re told.

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Section 1

Introduction of the Problem

Changing policies have led to high stakes accountability in education, increasingly more during the past 20 years, which have also changed the expectations of the teacher's role (Valli & Buese, 2007). Providing training opportunities that are consistent with these changing roles is challenging when considering the various needs of teachers and managing limited resources (Jacob and McGovern, 2015). Although challenging, it is possible for districts to implement quality development programs that can impact a teacher's professional growth leading to increased effectiveness (Goldrick, 2016). Understanding the impact of professional development and the most effective practices for building teacher capacity should inform how districts creatively use available funds (Jacob & McGovern, 2015). Guskey and Yoon (2009) explained that selecting the best programs for improving teacher practice must begin with an analysis of current school district data to determine the effectiveness of current professional development offerings.

Effective professional development programs that improve instructional practice can only be offered if district leaders understand the needs of teachers through a careful analysis of teacher performance data, define for teachers what development/growth look like and create opportunities that align with research in regards to the best professional development models (Goldrick, 2016; Jacob & McGovern, 2015). Teacher development requires teachers to learn as well as be supported (Yusko & Feiman-Nemser, 2008). Professional development should be aligned with identified best instructional practices (Danielson, 2011). Professional development should focus on practical experiences and align with how effectiveness is defined for teachers

(Valli & Buese, 2007). With a myriad of factors influencing teacher effectiveness and the impact of professional development, Innovation Public School District (IPSD) has focused on implementing a comprehensive research based theory of action for teacher development (PGCPS, 2016). A wide array of data is needed and collected, however it must also be analyzed to make informed decisions about the implementation of current programs and their impact on teachers (PGCPS, 2014).

Statement of the Problem

Local education agencies (LEA) throughout the United States provide a wide variety of professional development options for teachers (Goldrick, 2016). However, it is often difficult to determine which professional development opportunities will be most effective, best attended, and well received by the wide spectrum of teachers (e.g., first years, mid-career, or veteran teachers) (Jacob & McGovern, 2015). Because teachers' professional development needs vary significantly, LEAs tend to implement selected strategies to improve teacher effectiveness and wait to see which strategy or program either has the greatest impact or elicits the least amount of resistance from school staff (Jacob & McGovern, 2015). With limited assessment and analysis of how professional development impacts teacher practice, school districts may overlook the cost effectiveness of an option or the degree of its impact on teacher growth (Guskey & Yoon, 2009).

In IPSD, a large urban district, professional development opportunities designed to develop teachers range from one-day workshops to one-year training programs (PGCPS, 2014). Additionally, professional development has been identified as the primary strategy for ensuring a highly effective teaching workforce (PGCPS, 2015a). The problem is that while IPSD regularly commits resources (to include money, manpower, and time) to the professional development of teachers each year, the district has limited data that assesses whether teacher practice has

improved in response to these trainings. Without appropriate data analysis, programs cannot be efficiently refined, potentially leading to the misuse of resources and missed opportunities to grow and retain teachers (Archibald, Coggshall, Croft & Goe, 2011).

Efforts to implement comprehensive programs that develop teachers are critical, but selecting and adopting the most effective models is just as critical but also extremely challenging (Yusco & Feiman-Nemser, 2008). Various departments (Office of Employee Performance, Office of Talent Development) within the district annually seek to evaluate their offerings to determine whether evidence supports program outcomes (PGCPS, 2016). This study provides an analysis of teacher practice data that would likely help the district determine how the implementation of a professional development program contributes to the district's goal of having a highly effective workforce.

Justification for Study

While research has documented the central role that teacher quality plays in promoting student achievement, studies have not yet yielded a consensus on the factors that enhance teacher quality (Harris & Sass, 2011). This is further complicated as definitions of teacher quality vary across the nation; however, the state of Maryland has defined an excellent educator as a teacher that has received a rating of effective or highly effective as part of an evaluation process where professional practice counts for at least 50% of the assessment (PGCPS, 2014; Howard County Public Schools (HCPS), 2015). Understanding the impact of teacher support offerings that align with components of the teacher evaluation process, specifically teacher professional practice, will contribute to decision making on how LEAs distribute resources and design professional development programs (Yoon, Duncan, Lee, Scarloss & Shapley, 2007; Guskey & Yoon, 2009).

Researchers, practitioners, and policy makers widely recognize teacher quality as the school-related factor that has the largest influence on a child's academic performance (Akiba, LeTendre, & Scribner, 2007; Fishman, Marx, Best & Tal, 2003; Hanushek, Kain, O'Brien & Rivkin, 2005). According to Desimone (2009), most researchers have identified the development of teachers as one of the keys to improving the quality of schools. Additionally, Suppovitz and Turner (2000) found that participation in professional development led to a substantive change in teacher practice linked to classroom environments and culture. As mentioned previously, LEAs often use professional development opportunities to improve teacher quality and these opportunities may take the form of course workshops, conferences, peer coaching, or mentoring which makes it difficult to know the influence of individual offerings (Croft, Coggshall, Dolan & Powers, 2010). It is apparent that professional development has the potential to influence teacher quality, and subsequently student achievement for the better; the challenge is ensuring that available training opportunities have the intended impact (Goldrick, 2016; Jacob & McGovern, 2015).

As states continue to focus on improving teacher quality, they must also align efforts to new policies that inform the ways that districts evaluate and improve teacher practice (Valli & Buese, 2007). Yuen (2011) suggested that such reforms identify specific practices that teachers can implement within the classroom setting and mandate the provision of professional development opportunities that support these practices. Also noted is the importance of using teacher performance data to identify the elements of professional development that have the greatest impact on teachers' growth (Jacob & McGovern, 2015; Valli & Buese, 2007).

In addition to professional development's potential impact on teacher growth, research has found that a lack of support that allows for teacher reflection, input and the enhancement of

teacher practice can be a leading factor in many teachers' decision to leave the profession (Ingersoll & Smith, 2003, 2004). Research has also shown that teacher supports provided through professional development, such as mentoring and induction programs may be the answer to solving issues of attrition in the field of education (Coronado, 2009; Ingersoll & Strong, 2011). Goldrick (2016) concurred, stating that without strong support and continued growth, many new educators do not stay on the job. Understanding which professional development practices prove most effective in addressing district needs can potentially impact how district leaders look to improve both teacher performance and teacher retention (Goldstein, 2004). Conversely, the failure of district leadership to understand how professional development contributes to teacher growth and retention can lead to the misguided utilization of resources in ways that do not meet the complex needs of teachers (Coronado, 2009; Ingersoll & Strong, 2011).

Satisfying teachers is critical as it is one factor identified to have a huge influence on teachers remaining in the profession (Ingersoll & Smith, 2003, 2004). Teacher practice data must be carefully analyzed to understand how teachers are impacted as a result of district efforts. In addition, analysis is needed to determine whether results align with district goals, to understand teacher's thoughts about their experience in a program and to determine how to improve alignment between the three (PGCPS, 2014, 2016).

Despite challenges, the development of the current teaching workforce is a great opportunity to impact student achievement (PGCPS, 2015a). If districts are going to achieve state and federal student performance goals, teachers will need to master essential skills aligned with highly effective instructional practices (Valli & Buese, 2007). As Jacob & McGovern (2015) noted, districts must begin to assess the degree to which existing teacher development

activities are helping teachers attain key skills. Professional development is typically used to address challenges to teacher attrition and growth. Understanding the impact of professional development would require a separate analysis of both.

Professional Development as a Tool to Reduce Teacher Attrition

The reduction of teacher attrition is just one of several areas of concern that the district has identified addressing through professional development (PGCPS, 2014). Researchers have reported that teacher support, especially through high quality induction programs, could help to improve the workforce and retain high-quality teachers in the high poverty areas that need them the most (Ingersoll & Smith, 2004; Ingersoll & Strong, 2011; Goldrick, 2016). This finding aligns with research that concludes that professional development provides vital support that decreases teacher attrition (Ingersoll & Smith, 2003, 2004; Coronado, 2009). There is an increasing need to retain teachers so finding the best solutions for supporting them must be addressed with a sense of urgency (National Center for Educational Statistics (NCES), 2014).

The urgent need to retain teachers is evident in national, state, and local attrition data. The National Center for Educational Statistics (NCES) (2014) reported that only 84.3% of teachers in School Year (SY) 2012-13 remained in the teaching profession. In a separate study, the NCES (2015) followed a cohort of teachers that taught from SY08 through the SY12 school year. The researchers concluded, “Among all beginning teachers in SY08, 10 percent did not teach in SY09, 12 percent did not teach in SY10, 15 percent did not teach in SY11, and 17 percent did not teach in SY12 (NCES, 2015, p.3).”

The same trends are present in IPSD. In recent years, IPSD has had a consistently high attrition rate that exceeded 15% in both SY14 and SY15 (PGCPS, 2015a). Despite the millions in funds committed to professional development for the district, IPSD continues to lose almost 16%

of teachers each year, 58% of whom ultimately resign (PGCPS, 2014). During SY14 and SY15, other Maryland counties like Howard, Montgomery, and Anne Arundel have reported attrition rates below 10% (Lawton, 2013; Maryland State Department of Education (MSDE), 2014). The Master Plan highlights that many of the struggles faced by students in IPSD are possibly due to the learning curve of approximately 1,000 teachers entering the district each year. The attrition rate of 15.7% in IPSD is greater than the state average of 7.1% (MSDE, 2015; PGCPS, 2015a). IPSD’s turnover rate accounts for 20% of Maryland’s overall turnover rate (MSDE, 2015). During a two-year period, IPSD had more than a 2% increase in its teacher attrition rate (PGCPS, 2014). Despite district efforts, trends show that IPSD is approaching a return to an attrition rate of more than 18%, which it experienced in SY12. With a five-year average teacher attrition rate of 15% reflected in Table 1, developing new teachers in the district is critical (PGCPS, 2014). While professional development ideally has a positive influence on components of teacher retention, Ingersoll (2011) questioned the degree of impact professional development has on teachers’ growth.

Table 1

Annual Attrition Rates in Innovation Public School District

Years	Retirement	Resignation	Dismissal	Leaves	Total
2011-2012	3.6	9.5	0.3	4.4	18.1
2012-2013	2.5	7.9	1.3	1.6	13.4
2013-2014	2.4	9.1	0.8	3.3	15.7
2014-2015	2.8	8.5	1.1	3.4	15.7

Professional Development to Support Inexperienced Teachers

If LEAs are to respond to the federal call to close the achievement gap between low and high-poverty students, they must also address the higher numbers of new and inexperienced

teachers (1-3 years in the classroom) at the lowest performing schools (MSDE, 2015; Peske & Haycock, 2006). Classes in high poverty and high minority secondary schools are more likely to be taught by inexperienced “out of field teachers” - those without a major or minor in the subject they teach (Akiba, LeTendre & Scribner, 2007). In the state of Maryland, teachers were more likely to be inexperienced and teaching out of their certification area in schools with high poverty and minority populations (MSDE, 2015).

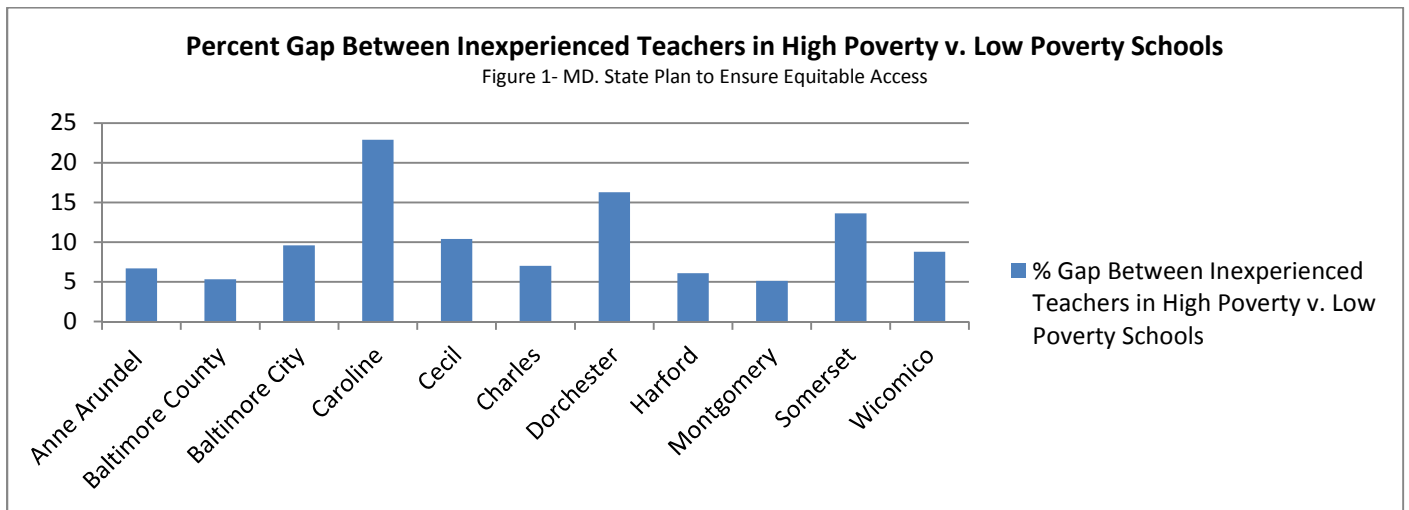


Figure 1. Percentage gap of inexperienced teachers in high versus low poverty schools (2015)

With the growing number of inexperienced teachers in every classroom, it becomes even more important to build teacher capacity through in-service training and the strategic use of resources that could aid in developing the current educational workforce (MSDE, 2015). Figure 1 identifies the counties in Maryland with the greatest gaps in inexperienced teachers working at high poverty versus low poverty schools within that district. For example, in Baltimore City approximately 10% more inexperienced teachers are working in high poverty schools than low poverty schools. The MSDE identified any gap greater than 5% as significant in an attempt to ensure equitable access to excellent educators (MSDE, 2015). While IPSD did not have a significant gap in the distribution of inexperienced teachers in high versus low poverty schools

greater than 5% in SY15, more than 22% of teachers were considered inexperienced throughout the district. 13% of those inexperienced teachers were working at high-poverty schools (MSDE, 2015). This data indicates that support is necessary for inexperienced teachers in both low and high-poverty environments, however the need is greater in high poverty environments where skilled teachers are needed the most (Akiba, LeTendre & Scribner, 2007; Hanushek & Rivkin, 2006; Peske & Haycock, 2006).

Annually, districts throughout the U.S. spend more than \$2.2 billion on the recruitment and training of new teachers (Huffington Post 2011; Smollin, 2011) and \$20 billion on professional development (NCES, 2008). The typical cost of turnover for any organization where workers are making less than \$75,000 is typically 20% of the salary (Bousey & Glynn, 2012). Based on the current trend within the district and the aforementioned figures, this would be an estimated annual cost of more than 15 million for Innovative Public School District. Districts must be creative in the use of funds, but they must also be knowledgeable about program data in order to reduce the misuse of limited funds and available resource (Coronado, 2009; Ingersoll & Strong, 2011; Jacob & McGovern, 2015). The most important service that educational leaders can provide to teachers, particularly those who are new to the profession, is to engage them in exploration and reflection of their work and the effectiveness of their current practice (Feiman-Nemser, 2003; Yuen, 2011). The ultimate task is to implement effective development programs that yield outcomes aligned to district goals.

Prior Attempts to Develop and Retain Teachers in Innovation Public School District

Research has found that schools have been historically unable to retain experienced teachers and a high percentage of teachers leave during their first three to five years of service (Ingersoll & Smith, 2003; Ingersoll & Strong, 2011). In the SY15 IPSD allocated \$10.33 million

to the offices of Continuous Support and Talent Development (PGCPS, 2014). Both offices work collaboratively with the Office of Employee Performance to improve schools through the development and retention of teachers (PGCPS, 2014). The strategic plans for both departments included professional development as a strategy for improving the following teacher outcomes:

- participation in a cohesive and comprehensive delivery model for system wide professional learning that supports workforce development and educator effectiveness;
- participation in systemic efforts that support the Framework for Teaching, which is one of three concepts that comprise the new IPSD Master Plan; and
- participation in differentiated training programs that reflect research-based best practices (PGCPS, 2014).

In the IPSD Master Plan, the teacher evaluation system and job-embedded professional learning were two of seven identified focus areas for professional development (PD). Additionally, a majority of the strategies targeted teachers in their first three years of teaching (PGCPS, 2014), and included various professional development program. The following sections provide an overview of PD program studied here, as well as an overview of the other IPSD teacher-retention programs. To help the district better serve the growing number of inexperienced teachers and their varying needs, this study examined a teacher support strategy—Peer Assistance and Review (PAR)—that targets non-tenured teachers who are new to IPSD.

Peer Assistance and Review (PAR). The Toledo School District first implemented peer assistance and review (PAR) over 30 years ago in Toledo, Ohio. PAR requires an intensive commitment of human resources, and districts typically implement the approach in conjunction with revised teacher evaluation models (Johnson, Papay, Fiarman, Munger, & Qazilbash, 2010).

School district leaders in Toledo originally designed the PAR program to help stabilize the teacher workforce by developing and retaining high-quality teachers, which is essential to creating stability within schools and districts (Akiba, LeTendre & Scribner, 2007; Hanushek, Kain, O'Brien & Rivkin, 2005; Peske & Haycock, 2006). On average, PAR programs cost \$3,000 to \$10,000 per teacher served (Papay & Johnson, 2012). The program typically replaces traditional mentoring and professional development programs, which can offset the overall cost of the initiative (Papay & Johnson, 2012). By increasing the number of evidence-based classroom observations and evaluations, the program helps districts grow new teachers and dismiss ineffective ones (Papay & Johnson, 2012). The implementation of PAR has positively influenced teacher growth and retention (Goldstein & Noguera, 2006; Johnson et al., 2010; Papay & Johnson, 2012).

In 2014, IPSD implemented the PAR program to provide consistent support to new teachers to ensure that their pedagogy aligned with the best practices outlined in Charlotte Danielson's Framework for Teaching (FfT) (PGCPS, 2015a). The FfT, which IPSD has adopted as the primary rubric for the district's observational process, includes four domains sub-divided into 22 components. The framework identifies aspects of teacher practice that improve student learning and seeks to define what teachers should know and be able to do in their efforts to meet professional responsibilities (Danielson, 2011). Danielson & McGreal (2000) challenged that evaluative criteria was outdated and limited, the idea that there were few shared values and assumptions about teaching and that there was a lack of precision in evaluating performance. Although the framework provides clear ratings for teacher performance, the implementation of the FfT provides challenges for districts because the use of FfT alone does not guarantee productive conversations leading to improved performance (Danielson, 2008). Many have

argued that teacher growth is ultimately dependent on how the framework is used, the culture of the school and district, the respect between teachers and administrators and a commitment by educators to ongoing improvement (Danielson, 2008).

Benefits of the PAR program are evident in district data from Montgomery County Schools in Maryland, where only 5% of participants in the program resigned and/or retired since its inaugural year in 2000. Additionally, more than 87% of the county's teachers entered the professional growth cycle within 1-2 years of support and successfully transitioned to tenured teachers (Montgomery County Public Schools, 2014). Entering the professional growth cycle requires teachers to demonstrate competence in implementing best instructional practices. IPSD adopted PAR to bring about the same level of success. The district's Master Plan noted that PAR would provide intensive and differentiated support to teachers who were in need of improvement in the area of professional practice. First year PAR data showed that 87% of PAR teachers in IPSD had their contracts renewed due to PAR support (PGCPS, 2015a). The available data does not describe the impact of PAR on teacher practice. PAR is only one of a few interventions and programs identified to support teacher growth (PGCPS, 2015a). Having an extensive analysis of teacher performance data of PAR participants will assist district leaders make decisions about the allocation of resources and the refinement of the PAR program. Following are additional interventions implemented to support new teachers.

Maryland Approved Alternative Education Program. Mentoring support offered through the Maryland Approved Alternative Education Program (MAAPP) is an alternative to PAR that supports new teachers in Innovation Public School District. Participation in MAAPP is limited to candidates from the following programs:

- IPSD Resident Teacher Program,

- Teach for America,
- The Maryland Science and Mathematics Resident Teacher Program, and
- Notre Dame Maryland Dual Special Education Program.

During the 2014-15 school year, 14.5 positions (one person assigned to work part time as a mentor) designated as MAAPP mentors supported more than 150 resident teachers. Entry into the program, provided participants with immediate standard professional certification and highly qualified teacher status in exchange for a two- to three-year commitment to teach in the school system (PGCPS, 2015a). The district measured the success of the program by the 80% retention of teachers in its 15 years of existence (PGCPS, 2015a). There was no data available in regards to the impact of MAAPP on teacher practice.

First-year Teacher Mentors. Although the IPSD Master Plan did not specifically mention the use of mentors to support new teachers, there has been a tremendous increase in the number of mentors hired in the district. The IPSD SY16 approved operating budget included 26.5 staffing positions allocated for mentor teachers, which grew from the 7.5 positions financed in SY14. During SY16, these mentors served approximately 420 teachers (Office of Talent Development, personal communication, May 18, 2016). While limited historical data is available on teacher performance, the district is currently working to build a culture of data driven-decision making (Office of Talent Development, personal communication, May 18, 2016). The data that is available in the office provides a comparison of mean performance FfT ratings for 1st year teachers with and without a mentor (Office of Talent Development, personal communication, May 18, 2016). The available data does not include an analysis of teacher performance growth during participation in the program (Office of Talent Development, personal communication, May 18, 2016). However, the Office of Talent Development, which coordinates

and supervises the first year teacher mentors, has begun to track data on how mentor teachers utilize their time within schools (IPSD Instructional Specialist, personal communication, March 22, 2016).

Professional Educator Induction Program (PEIP). IPSD has offered the Professional Educator Induction Program for more than 10 years. PEIP serves to engage new teachers in professional development activities during their first week in the district and increase their knowledge of the school system, its programs, and the curricular skills needed when entering the first week with students. The district differentiates PEIP activities by content area (math, reading/language arts, science etc.) and grade band (elementary, middle and high school). Supplemental, voluntary follow-up sessions are also available during the school year.

A specialist was assigned to oversee the program, and allocated \$195,598 for materials and training (PGCPS, 2015a). There was no data currently available on how PEIP has impacted professional practice (Office of Talent and Development, personal communication, May 18, 2016).

Coaching and mentoring. Three of the four teacher development strategies highlighted in the district's Master Plan (2015) involve coaching and mentoring principles. Connor and Pokora (2012) contended that effective coaching and mentoring began with clear expectations, a working agreement between two or more parties embedded in an ongoing review and feedback process. Patton, Griffin, Sheehy, Arnold, Gallo and James (2005) also described coaching and mentoring as an effective reform tool for improving schools by enhancing the practice of the teacher workforce.

IPSD has established the development of a "high-performing workforce" as one of its five focus areas designed to ensure outstanding academic achievement for all students.

Developing effective coaching and mentoring programs for new teachers could aid the district in achieving this aim. In addition, access to targeted data on the effectiveness of approaches related to coaching and mentoring could aid decision makers as they choose between a wide range of available interventions (Coronado, 2009; Ingersoll & Strong, 2011; PGCPs, 2015a; Jacob & McGovern, 2015). The majority of the identified teacher supports in IPSD are aligned with coaching and mentoring practices (PGCPs, 2015a). This study will explore the Peer Assistance and Review program that utilizes coaching and mentoring as the primary facilitation strategy to improve the practice of teachers that have been in the district 1 – 3 years.

Literature Review

This literature provides an overview of professional development and its potential impact on teacher practice. For teacher practice to improve, elements of an effective professional development model must be implemented. This literature review takes an in-depth look at the most comprehensive professional development research completed in recent history. A review of the literature identifies growth areas for current professional development offerings as well as recommendations for improving professional development to meet the needs of both the teacher and school district.

The current professional development offered in IPSD to support teachers and improve their practice uses research-based strategies grounded in coaching and mentoring (PGCPs, 2016). Additionally, due to more than 1000 teachers entering the county each year, the need to support new and inexperienced teachers has become the focus. The literature concludes with examining PAR, which entered its third year of existence in IPSD during SY17. PAR has utilized as many as 17 master teachers to facilitate support for non-tenured teachers, with 1 to 3

years in the district, through coaching and job embedded training (PAR Office, personal communication, September 17, 2015).

Building teacher practice through professional development.

According to Harris and Sass (2011), stakeholders generally acknowledge that promoting teacher quality is a key element to success in elementary and secondary schools in the United States. Many educators have long believed that professional development can be a catalyst in improving teacher quality by helping teachers convert theory into best instructional practices (Goldrick, 2016). The overall goal of improving teacher quality must extend beyond observable qualifications like certifications, degrees, and years of experience (Borman & Kimball, 2005; Harris & Sass, 2011). Goldstein (2008) also noted that to be effective in the classroom, teachers must continue to grow as skilled practitioners.

Prior to NCLB (2001), there was little federal oversight regarding teacher qualifications, and LEAs were allowed flexibility in designing strategies to develop and retain a high-quality teaching force. Kent (2004) called for the establishment of professional development policies at the state level that add to the qualifications and skills teachers must have in their repertoire. The U.S. Department of Education (2015) specifically identified four professional development strategies for improving teacher quality:

1. Providing additional support for educators early in their careers;
2. Providing targeted professional development informed by meaningful data;
3. Providing classroom coaching for teachers in high-poverty or high minority schools to promote the use of effective instructional strategies; and
4. Implementing multi-tiered systems of support to deliver evidence-based academic and behavioral interventions of increasing intensity (p. 2).

Designing new programs could be costly, but Fishman, Marx, Best & Tal (2003) noted that when designing professional development programs, district leaders should consider data that describes the proven effectiveness of the professional development approach, the range of contexts it should influence and the overall impact on teachers. Goldrick (2016) argued that national policies, state mandates, and district guidelines are of no use if educational leaders fail to translate them into better teaching practices.

Effective Professional Development

Developing a high-performing workforce is one of five goals identified in the IPSD Master Plan for SY16-SY20. The plan listed the alignment between staff development and system goals as one of two strategies designed to help develop the workforce. Due to the number of variables that define teacher effectiveness, which should be aligned with high stakes accountability, determining the effectiveness of systemic supports implemented to improve teacher practices can be a daunting task for district leaders (Valli & Buese, 2007). Data related to the effectiveness of selected programs could aid in the decision-making process as states and districts develop annual budgets for education (Archibald, Coggshall, Croft & Goe, 2011). IPSD now seeks to analyze both qualitative and quantitative data to determine the effectiveness of its professional development in building the capacity of teachers.

In response to requirements for the Every Student Succeeds Act (Association for Supervision & Curriculum Development, 2015), districts now list professional development in state and federal compliance documents as a prominent strategy for building the capacity of new teachers and addressing instructional deficiencies (MSDE, 2015). ESSA has updated the definition of professional development to include personalized, ongoing, job embedded activities that are collaborative and data driven, developed with educator input and regularly evaluated.

ESSA has changed the requirement that professional development be scientifically based with a requirement that it be evidence based (ASCD, 2015).

Archibald et al. (2011) developed characteristics of high quality professional development that can be used by districts in evaluating teacher training. The characteristics of quality professional development was developed in partnership with the National Comprehensive Center for Teacher Quality, a federally-funded center that serves as the premier national resource for information on strengthening the quality of teaching whose recommendations are relevant to all demographics with extensive research targeted in high-poverty, low-performing, and hard-to-staff schools. Based on its research, in 2011, the following five characteristics were identified as essential to high-quality professional development:

1. There must be an alignment between school, district, and state goals, as well as established standards and assessments used to measure progress. Professional learning opportunities must also include formative evaluation methods.
2. Professional development must focus on core content and modeling of strategies that are content specific.
3. Opportunities for active learning strategies should be included in the development of new teaching strategies.
4. There needs to be an embedded follow-up and feedback process.
5. High-quality professional development should include opportunities for collaboration with other teachers (Archibald et. al., 2011, pg. 3)

Although training activities implemented in large districts may include one-time professional development, university partnerships, and coaching, districts should look to focus on creating professional learning opportunities that primarily take place in schools and classrooms so that

teachers can find solutions to authentic problems (Croft, Cogshall, Dolan & Powers, 2010; Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009; Hawley & Valli, 2008; Jacob & McGovern, 2015).

Improving Professional Development

In 2015, The New Teacher Project produced the Mirage Study that represents the most recent and extensive research conducted on the effectiveness of professional development. Over a two-year period, the researchers examined three large school districts and one mid-size charter network by surveying 566 school leaders, 10,507 teachers, as well as conducting interviews with 127 staff development personnel. Between the districts there were more than 20,000 teachers serving approximately 400,000 students, 69% of which lived in low-income households. The methods used for this study were unlike most research, which typically focus on one form of professional development. Instead this study identified teachers who demonstrated improved performance and worked backward to find any experiences, environments or mindsets they had in common in contrast to those teachers whose performance did not improve substantially (Jacob & McGovern, 2015). By examining several performance outcomes over two to four years the researchers were able to track the performance of individual teachers and link them to survey results about development experiences (Jacob & McGovern, 2015). These findings were critical in determining the most effective professional development components.

The Mirage Study examined approaches to professional development that educators considered common practice. They also explored which types of professional development were most effective and provided recommendations for improving teacher development systems within districts and schools. The researchers considered the impact of teachers' experience, mindset, and environment. In addition, they examined the relationship between those factors

using various measures such as teachers' growth using summative evaluation ratings, classroom observations scores, and value added scores as well as collected feedback from teachers and school leaders on their professional development experience. The purpose was to compare the engagement of teachers in professional development to determine whether teachers with documented improvement shared common experiences that differentiated them from teachers that had not demonstrated improvement (Jacob & McGovern, 2015).

The researchers divided the Mirage study into the following categories of investment, results, and teacher perceptions. It was determined that these areas were critical in defining the effectiveness of programs, which should inform decision making about the improvement of program components, and prioritizing budgeting challenges.

Investments—Data from The Mirage Study showed that districts and states across the nation made large investments in teacher development. According to the report these investments fell into the following categories: financial costs, professional learning experiences (workshops and courses), teacher time devoted to improvement, and staffing dedicated to teacher development. The data revealed that the districts studied devoted 6% to 9% of the budget to teacher improvement. The report noted the sizeable nature of these investments, which were, in some cases, more than 10 times greater than similar professional development investments in other industries.

Results—The results of the study show that most of the participating teachers did not show substantial instructional improvement over consecutive years after participating in professional development opportunities. The report also stated that instead of experiencing the expected growth, it was as if the teachers were “marching in place”. Participating teachers' average performance on evaluations generally remained the same, and administrators noted

similar outcomes of average performance in teacher observation records that identified specific instructional practices. The report also noted that some initial rapid growth was evident, but that growth seemed to plateau after the first five years. At the current growth rate in the sample districts, it would take more than 30 years for a teacher to receive a “highly effective” rating in developing students’ critical thinking skills (Jacob & McGovern, 2015).

However, it was also noted in the study that there were some small but consistent statistical gains associated with teacher practice (Jacob & McGovern, 2015). It was cited that at the school level, the researchers documented a relationship between the number of observations a teacher received and increases in observation scores. They also discovered a correlation between the number of observations a school conducted and the number of improved teachers at the school. The data revealed a consistent relationship between a teacher’s perception of effectiveness, their formal evaluation ratings, and teacher growth across all measures at both the school and the individual level (Jacob and McGovern, 2015).

Teacher perspectives—The Mirage study found that many teachers in the districts did not have an accurate understanding of or the ability to define, effectiveness or qualify performance. The data revealed that 80% of the teachers surveyed believed that their performance ranked at the two highest levels of observation ratings, and many teachers in the study concluded that there was little room for growth in their educational practice. In addition, the report showed that 62% of lowly-rated teachers believed that their instruction had improved and that professional development offered did not meet their individual needs.

The findings of the Mirage study suggest the need for greater differentiation in the supports provided to improve teacher practice. Responding teachers did not feel that the professional development activities led to a sustainable change in their practice and expressed

the need for district leaders to clarify their perception of what improvement looked like. This provision of a single vision for improvement could be a significant help for teachers who may receive different messages from different sources like curriculum specialists, instructional coaches, school administrators, mentors, and external evaluators.

Recommendations: The 3 Rs - The study acknowledged that although research data showed little growth related to existing professional development efforts, it was important that districts continue to search for innovative ways to improve teacher practice. The report provided the following recommendations (the 3 Rs) as essential to a teacher's professional learning:

Redefine. Educational leaders must collaborate with teachers to understand their individual needs and establish a transparent goal of teacher improvement. The researchers suggested that districts develop a clear definition of development that teachers could demonstrate through observable and measurable practices. The report noted that each district would need to begin by identifying and articulating high standards for teaching (Jacob & McGovern, 2015).

Moreover, findings suggest that districts needed to build teacher trust by guiding teachers to a deeper understanding of their own practice, performance, and progress. The findings from the Mirage study also indicated that teachers do not have accurate information about their performance or its alignment with the standards adopted by the district. This lack of information can lead to uncertainty about the skills teachers have mastered and those that require additional improvement.

Re-evaluate. The Mirage study declared that all districts could benefit from re-evaluating current professional learning programs and support, beginning with the development of reliable baseline data for current approaches and their impact on teacher practice. The study suggests that district leaders make many assumptions about program impact without the benefit of thorough

program evaluation. According to the Jacob & McGovern (2015), evaluation and observation models used should yield datum that differentiate teacher performance. Organizing teacher performance data will allow districts to develop systematic ways to provide support. Once states and districts have a better understanding of the impact of program components that lead to teacher growth, they will be better prepared to reallocate funds for proven professional development activities based on their impact.

Reinvent. For teachers, managing a classroom typically involves a long list of responsibilities. Without further research that looks at those responsibilities and opportunities to reconstruct the tasks that define a teacher's role, it may be impossible for districts to meet all of the teacher's needs (Jacob & McGovern, 2015; Valli & Buese, 2007). The study recommends that districts reinvent how they support effective teaching and utilize professional development as one of many strategies to improve instructional quality. This will require a balance in the investment into teacher development, recruitment, compensation and retention.

High-quality professional development is essential to the future of education, the development of teachers and must be a priority in responding to the challenges of the current student population (Kent, 2010). According to the Jacob & McGovern (2015), for states and districts to conduct accurate measures of teachers' growth and development, there must first be an agreement about the criteria for effectiveness. A structured analysis of teacher performance data is needed in order to better allocate resources to refine existing programs or develop new ones (Archibald et. al, 2011; Fenwick & Weir, 2010; Hawley & Valli, 2000).

What is PAR?

“Teacher evaluation has generally been defined as a mechanism for appraisal in order to determine fitness for employment rather than a means for improving practice” (Goldstein, 2008,

p. 8). PAR was designed to address the aforementioned disconnect. Johnson et al. (2010) described PAR as a “promising component of an effective human capital strategy” (p. 1). Developed in 1981 through a partnership between the Ohio teachers’ union and the Toledo School District, PAR has served to foster a culture of improvement within districts across the country (Anderson & Pellicer, 2013). PAR formally involves teachers in the formal teacher evaluation process and uses peers or colleagues to help define, measure, and support good teaching (Kumrow & Dahlen, 2002). The National Educators Association (2012) confirmed that PAR has met initial expectations by stating, “PAR is a program of structured mentorship, observation and rigorous standards based on the evaluation of teachers by teachers that is among the strongest ways to develop great teachers” (p. 3). The design of PAR programs varies across the country but most have similar components.

According to Anderson and Pellicer (2001), the PAR process involves consulting teachers (CT), a PAR panel, and a participating teacher (PT) or client. Consulting Teachers are typically teachers who have experienced at least 5-7 years of teaching and have a history of excellence (Goldstein, 2004; Johnson & Fiarman, 2012). The client is one whom the school has identified as being unable to meet specified quality standards. Factors for entering the program are determined by the district in collaboration with the teacher’s union (Johnson et al., 2009).

The district releases consulting teachers from all teaching duties so that they can participate in the PAR process full-time, diagnosing the strengths and weaknesses of a given client then tailoring support accordingly. Consulting teachers receive additional training on best practices for teacher observation, coaching, and mentoring as well as handle a number of supportive responsibilities, including the following:

- Coaching teachers through the process of analyzing, reflecting upon, and improving instructional practices;
- Developing a growth plan for each teacher based on his or her strengths and weaknesses;
- Arranging opportunities to visit teachers at other buildings in order to observe the implementation of best practices;
- Providing resources and materials needed for teachers to address identified growth areas;
- Visiting teachers regularly to provide assistance and feedback (Goldstein, 2007).

Throughout the school year, the consulting teachers report on the client's progress toward identified teaching standards (Stroot, Fowlkes, Langholz, Paxton, Stedman, Steffes & Valtman, 1999).

The local union president and a high-ranking district administrator typically serve as co-chairs of the PAR panel (Johnson et al., 2009). The panel may vary in size from five to twelve members, usually to include both teachers and principals. The district establishes the responsibilities, meeting schedule, member terms, and all relevant processes for the PAR panel (Johnson et al., 2010). Despite these variations, the primary responsibility of the PAR panel is to manage the cases of participating teachers to determine whether clients have demonstrated growth towards an identified standard. The panel assesses each teacher's growth, as well as evidence provided by consulting teachers, and then makes recommendations about whether the district should continue to employ the struggling teacher (Harvard Graduate School of Education, 2012). Districts use PAR as both a form of support for novice teachers and as an intervention for struggling tenured teachers. Typically, teachers participate in PAR for 8-9

months (Montgomery County Public Schools (MCPS), 2004); however, special circumstances may occur that require a PT to leave the program early or continue their participation beyond the typical timeframe.

Impact of PAR

Ideally, PAR addresses both teacher support and the evaluation process (Papay & Johnson, 2012). Research has shown that teachers can provide targeted support to other teachers, even as a part of the evaluation processes, that result in improved practice (Goldstein, 2004, 2007; Goldstein & Noguera, 2006; Qazilbash, Moore, Fiarman, Munger & Papay, 2009). Despite challenges, PAR participating teachers have experienced improvements when the focus of the program has aligned with performance objectives (Stroot et al., 1999). District administrators have acknowledged that PAR has provided teachers, with low performance ratings, the expert assistance they need to support and encourage them as they look to grow their practice (Moore & Fiarman; Papay & Johnson, 2012).

The organizational benefits of PAR include improved induction and support through intensive mentoring, assistance in guaranteeing sound tenure decisions, addressing the problems of struggling veterans, creating a professional culture committed to instructional improvement, increasing labor-management collaboration, promoting the development of teacher leaders, and alleviating burdens on principals (Goldstein & Noguera, 2006; Johnson et al. 2010; Papay & Johnson, 2012). PAR aids in improving teacher support and evaluation, raising teacher quality, and professionalizing teaching (Goldstein, 2007). Since its inception, more than 40 school districts throughout the U.S. have adopted PAR (Johnson et al., 2009; Papay & Johnson, 2012). Some districts that have implemented PAR include Boston, Salt Lake City, Hillsborough County

(Fl.), Cincinnati, Minneapolis, Rochester, San Juan, Syracuse, Baltimore and Montgomery Counties in Maryland as well as a statewide PAR implementation model in Ohio.

The greatest champions for PAR work in districts that have implemented the program. Districts large and small have implemented the initiative - systems as large as Montgomery County Public Schools, with 140,000 students, and as small as Syracuse, with a little less than 25,000 students. The Columbus City School District has also embraced the professional growth component of PAR and has instituted it as the district's comprehensive professional growth system (Johnson et al., 2010). States and districts typically measure the success of PAR by examining the number of participants that have left the program due to improvements in their educational practice (see Table 2). Districts that have implemented PAR have also reported significant savings because of the program, as it typically costs \$10,000 to replace every novice teacher that leaves the system (Johnson et al., 2010).

Table 2

Outcomes for Teachers in the PAR Program

District	Total years of PAR implementation	% of non-renewal	2 nd year of PAR	% of teachers that resigned and/or left the district
Cincinnati	21	2.8%	5.6%	NA
Montgomery County Public Schools	8	2.4%	5.2%	1.8%
Rochester	20	---	---	12%
Syracuse	2	---	---	7.7%
Toledo	26	*2.4%	---	7.8%

Source: A Users Guide to Peer Review Assistance and Review (Data is provided up to 2008) *Non-renewals ended in 2004

The collaboration between the district and teacher union in the implementation of PAR has created a major shift in the accountability for teachers (Goldstein, 2008; Rosales, 2015). Goldstein (2004) asserted that one of the greatest challenges to PAR implementation is the need to rethink distributive leadership. Similarly, Qazilbash et al. (2009) noted that the idea of a program designed to be both supportive and evaluative will require union and district leaders to rework how they interact; particularly as a part of the evaluation process, PAR could lead to dismissal of teachers who do not meet established standards. However, the partnership symbolizes the two parties' agreement on standards of performance and teacher quality (Goldstein, 2008). Despite challenges, Table 2 shows positive data relevant to districts' outcomes for retaining the teacher workforce. Similarly, in IPSD, PAR data found within the district's strategic plan currently speaks to the retention of participants but does not specify impact on teacher practice (PGCPS, 2015a). It is unclear clear how participation in PAR impacts the participating teacher (PT).

PAR in Innovation Public School District

In IPSD, the Office of Employee Performance and Evaluation (OEPE) provides oversight for the PAR program, which provides intensive and differentiated support to non-tenured teachers who need to improve their professional practice. The OEPE represents a partnership between the district, the teacher's union, and the union for supervisory personnel. The primary goal for this department is to work with other district offices to ensure that teachers receive the support they need to demonstrate the highest standards of instructional delivery based on teacher performance data (PGCPS, 2015b). OEPE's goal of the PAR initiative is for highly effective teachers to provide regular, consistent support to non-tenured teachers who have been referred to the program by their principal. This support provided by PAR includes peer coaching and peer

observations designed to ensure that there are highly effective teachers in every classroom (PGCPS, 2015b).

PAR relies on the district's adoption of well-defined teaching standards and rubrics. Consulting teachers can use those rubrics to (a) convey to participating teachers the practices that exemplify good teaching (as defined by the district), (b) track teachers' progress as they improve, and (c) clearly explain their ratings (Johnson & Fiarman, 2012). In IPSD, the consulting teachers utilize the Danielson Framework for Teaching as the model for standards of exemplary practice and as a rubric for rating teacher practice (PGCPS, 2014). Teachers receive ratings that create a baseline to describe their performance and are used to guide conversations about progress. The four essential components that frame the structure and systems of the PAR program in IPSD are as follows:

1. The PAR panel is comprised of four teachers, four administrators, the executive director of OEPE, and a high-ranking member of the teachers' union. Members on the panel work collaboratively with consulting teachers to review reports of teacher growth and make recommendations to the PAR advisory council about teacher employment based on the data provided.
2. A PAR advisory board serves as a joint labor management practitioner committee and provides oversight for the PAR program (PGCPS, 2015b).
3. Principals typically refer non-tenured teachers to the program when they receive low performance ratings on formal observations. Certified observers, typically school administrators collect evidence associated with descriptors defined in the FFT observation tool and rates observations in alignment with the district's FFT rubric.

4. Consulting teachers assist non-tenured teachers through the provision of differentiated support. Support from consulting teachers yields data that the district can use to make personnel decisions in conjunction with the principal's evaluation of the teacher. OEPE selects consulting teachers through an established interview process. Consulting teachers must commit to five years to the program, and they receive training in observations (leading to an FfT certification), mentoring, coaching, and providing effective feedback. Consulting teachers conduct formal observations using the FfT observation tool and use the resulting data as a baseline to collaboratively develop, with the client, a professional growth plan. The district releases teachers from PAR when they demonstrate growth in professional practice ratings for observed instructional components and achieve proficient ratings in the areas in which they previously experienced challenges (Johnson & Fiarman, 2012).

The design of PAR in IPSD differs notably from the program design utilized in Montgomery County Public Schools (MCPS), which has employed a PAR initiative for more than 15 years (MCPS, 2004; PGCPs, 2015b). In MCPS, the district assigns all incoming teachers to PAR and allows for the participation of tenured teachers who have earned low performance ratings. As IPSD continues to develop and improve the design of its program, district leaders will seek to collaborate with MCPS (PAR office, personal communication, September 24, 2014). The PAR initiative has been in existence for less than five years in IPSD; as such, the opportunity exists to analyze new data, adjust the program to meet the needs of all parties involved and establish new methodologies that will lead to the growth of teachers.

Conceptual Framework

The transition to the Danielson Framework in SY14 provided IPSD with defined standards of performance for teachers and a rubric to utilize when collecting evidence and rating teachers. SY17 marked IPSD's fourth year fully implementing its current teacher evaluation model and the professional practice component of this evaluation model is based on formal observation ratings determined by evidence gathered using the FfT observation tool (PGCPS, 2014). It has been noted that there are tremendous challenges in using evidence to support the growth of practitioners in implementing evidence-based practices (Danielson, 2008). With defined criteria for teacher performance, based on extensive research of instructional best practices, the challenge becomes converting theory to practice (Danielson, 2011; Jacob & McGovern, 2015).

For this study, a conceptual framework was used to describe the complexity of the implementation of evidence-based practices of PAR, to identify elements that are required for supporting a successful change in practice by practitioners, and to consider how these elements align with PAR's components and this study's outcomes. The successful implementation of evidence-based practices requires that there is an interaction between three elements—evidence, context, and facilitation (Helfrich, Damschroder, Hagedorn, Daggett, Ritchie & Stetler, 2010). More specifically, implementation requires a clear understanding of (a) methods for collecting and utilizing evidence, (b) the complex role that facilitation plays in ensuring a successful change process, and (c) the importance of considering the quality of the context when evaluating implementation (Malone, 2004). The researcher used the framework in Figure 2 in examining how these elements impacted participation in PAR and the development of evidence based instructional practices.

Evidence - According to Rycroft-Malone (2004), evidence must be well-conceived, weighted by importance, valued as evidence, and systematically collected (Rycroft-Malone, 2004). For this study the Framework for Teaching (FfT) described evidence as anything observed (e.g. seen, heard, touched, smelled etc..) during classroom visits.

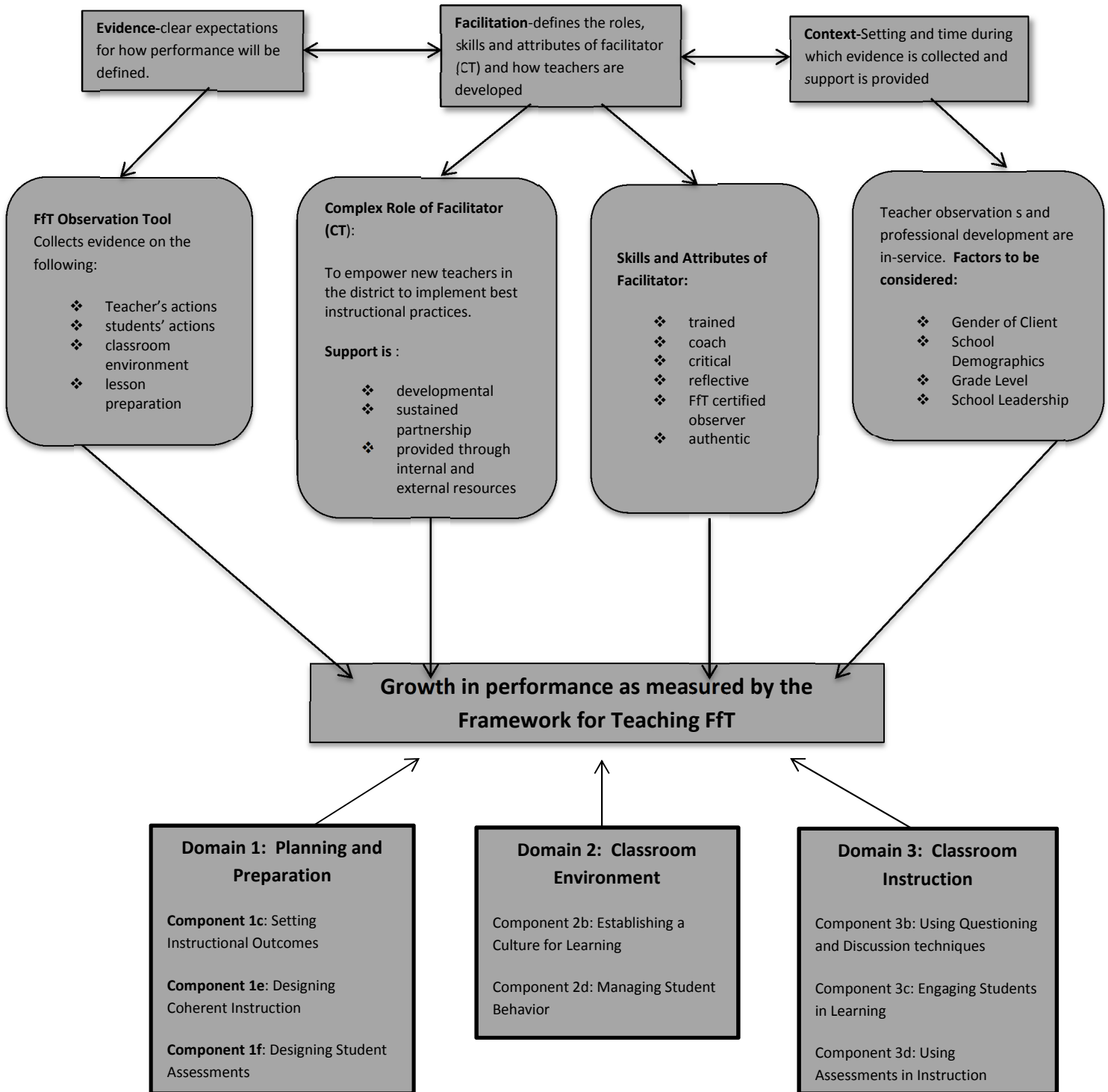
Context - Context is defined as the environment, setting and possible factors that may impact the provision of services (Rycroft-Malone, 2004). Researchers have begun to acknowledge the important role that contextual factors play in facilitating or inhibiting the implementation of practices (Helfrich et al., 2010; Rycroft-Malone, 2004). The following factors played an important role in establishing the context for the study: gender of client, school demographics, year of participation in PAR and school level (elementary, middle and high school).

Facilitation - High facilitation is defined as the process of enabling others to implement evidence into practice (Rycroft-Malone, 2004). To this end, facilitators must maneuver through a complexity of roles that require specific skills and knowledge. The specific needs of each individual client often dictate the specific role that the facilitator will play (Rycroft-Malone, 2004). The role of the facilitator should consist of a more hands-on approach where the facilitator guides a client through a reflective process focused on more holistic change requiring the client to be involved in the process of drawing conclusions (Kitson et al., 2008; Rycroft-Malone, 2004). In this study, the consulting teachers functioned as the primary facilitators and played a critical role in empowering new teachers in the district to implement instructional best practices.

Ultimately, the framework provides a map that enables others to understand the complexity of implementation and the elements that require attention if implementation is to be

successful (Kitson, Rycroft-Malone, Harvey, McCormack, Seers & Titchen, 2008). In this study, the researcher utilized the framework to (a) organize research on the implementation of best practices by teachers, as identified by the Danielson Framework, and (b) provide a frame for how PAR addresses the integral elements of evidence, context, and facilitation among developing teachers. Figure 2 shows the relationship between the three elements and illustrates how they relate to the PAR program in its support of implementing evidence-based practices. Teaching children is complex work; therefore, teachers must receive differentiated support guided by the analysis of teacher performance data (Goldrick, 2016; Garet, Porter, Desimone, Birman & Yoon, 2001; Jacob & McGovern, 2015; Valli & Buese, 2007).

Figure 2 – Conceptual Framework



Summary and Purpose of Study

Maryland stipulates that participation in professional development must be a component of the certification cycle (MSDE, 2015). ESSA requires professional development to be evidence based (ASCD, 2015). In IPSD, PAR is one of the primary professional development mechanisms through which district leaders have sought to support teachers in their efforts to implement evidence-based best practices in the classroom. During its first year of implementation, IPSD committed \$2.3 million to the PAR program. Allocated in the district's SY17 budget, the PAR office requested \$2.8 million to expand the program, with a proposed 20% increase in clients served (PAR program Liaison, personal communication, April 27, 2016).

The implementation models for PAR, and the desired outcomes, may vary across counties; however, IPSD seeks to achieve the following four outcomes through the program's implementation:

1. Attrition rates will improve annually by 5% from 2014-2019.
2. Eighty percent of teachers participating in PAR will show cumulative growth of observation ratings. Participating teachers may also demonstrate proficient or distinguished practices in their observation ratings.
3. Eighty-five percent of participating teachers served at low-performing schools will show measureable growth in professional practice.
4. The percentage of teachers meeting or exceeding standards of professional practice will increase by 10% annually. The ultimate goal is to have a minimum of 90% of participants demonstrating proficient or distinguished practices after a school year of PAR support (PGCPS, 2015b).

To provide valuable data that will help district leaders achieve these aims, this study analyzed the performance of teachers who participated in PAR to determine whether their

participation in the program led to growth in their professional practice, as measured by IPSD's observation ratings. This inquiry will provide useful data for the district relevant to aforementioned outcomes 2 and 3. Districts have typically conceptualized PAR in relation to teacher evaluation, retention and theories of distributed leadership, but few researchers have examined the professional development component. The researcher did not measure the effectiveness of PAR in relation to other programs or the growth results for teachers who did not participate in PAR. Instead, the study focused on participating teachers' first and last formal observation ratings to measure the influence of PAR on teacher practice in the following components:

- Component 1c: Setting Instructional Outcomes;
- Component 1e: Designing Coherent Instruction;
- Component 1f: Designing Student Assessments;
- Component 2b: Establishing a Culture for Learning;
- Component 2d: Managing Student Behavior;
- Component 3b: Using Questioning and Discussion Techniques;
- Component 3c: Engaging Students in Learning; and
- Component 3d: Using Assessments in Instruction.

All components of the FfT were not examined because they were not mandated components when PAR began in SY15.

The researcher also utilized interviews to examine the perceptions of participating teachers in order to gain a deeper understanding of the teacher's experience. Resulting data describes teachers' perceptions on how participation has impacted their practice. Since studies have revealed that teachers do not believe that professional development activities contribute to

sustainable change in their practice, additional teacher perception data can contribute to program refinements related to PAR outcomes 2 and 3 identified above.

Research Questions

There are challenges in using evidence to measure and inform the improvement of specific practices (Helfrich et al., 2010). The following five research questions served as a guide for the development and implementation of this study:

1. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 1: Planning and Preparation? The data was disaggregated and analyzed according to three components: 1c-Setting Instructional Outcomes, 1e- Designing Coherent Instruction and 1f-Designing Student Assessments.
2. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 2: Classroom Environment? The data was disaggregated and analyzed according to two components: 2b- Establishing a Culture for Learning and 2d-Managing Student Behavior.
3. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 3: Classroom Instruction? The data was disaggregated and analyzed according to three components: 3b-Using Questioning and Discussion Techniques, 3c-Engaging Students in Learning and 3d-Using Assessments in Instruction.
4. What significance, if any, does Title One status, participant gender, school level (secondary and elementary) and year of participation have on the mean FfT growth ratings of PAR participants?

5. What are teachers' perceptions about their experience in PAR and how has participation in PAR impacted their instructional practices?

Section 2

Investigation

The purpose of this study was to examine the impact of Peer Assistance and Review (PAR) on the teaching practices of non-tenured teachers in Innovation District Public Schools as assessed by the teacher observation tool, Framework for Teaching (FfT). As a new program in the district, PAR has been highlighted as an intervention to support the development and retention of teachers (PGCPS, 2015a). After the first year of implementing the PAR program 87% of PAR teachers were able to have their contracts renewed. This is a positive in the retention of teachers where the annual attrition rate has averaged close to 16% the past four years. However, the data available speaks to PAR's impact on retention but there is limited data available on its impact in the professional development of teachers. The development of new teachers to the district is critical in building a high-performing workforce (PGCPS, 2015a).

In the pursuit to ensure that there is a high quality teacher in every classroom, leaders should be aware of the impact of systemic programs and initiatives implemented to develop teachers (Peske & Haycock, 2006). In many districts PAR has been reserved for teachers who fail to consistently implement best instructional practices in the classroom (Johnson et al., 2009). District leadership can learn a lot from a program that targets those teachers that are in the most need of improvement (Yusko & Feiman-Nemser, 2008). Resulting data analysis could lead to recommendations and considerations applicable to programs throughout the school system. This study was guided by a mixed methods design. In this advance design, quantitative method was first used in order to collect numerical data that was used to explain the impact of the participation in PAR on the development of teachers. Qualitative method was then used to gain

insight on a teacher's perception about their participation in PAR and how it had impacted their instructional practices. This study focused on PAR participants during SY15 through S17. The sample, variables, instrumentation, and data analysis will be described in this section. As a new program in the district, the study analyzed the impact of PAR on a teacher's instructional practices.

Research Questions

The proposed study was guided by five research questions in order to describe the association of participation in PAR and how it had impacted the instructional practices of PAR participants. The research questions that guided this proposed study were:

1. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 1: Planning and Preparation?
The data was disaggregated and analyzed according to three components: 1c-Setting Instructional Outcomes, 1e- Designing Coherent Instruction and 1f-Designing Student Assessments.
2. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 2: Classroom Environment? The data was disaggregated and analyzed according to two components: 2b- Establishing a Culture for Learning and 2d-Managing Student Behavior.
3. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 3: Classroom Instruction? The data was disaggregated and analyzed according to three components: 3b-Using Questioning and Discussion Techniques, 3c-Engaging Students in Learning and 3d-Using Assessments in instruction.

4. What significance, if any, does Title One status, participant gender, school level (secondary and elementary) and year of participation have on the mean FFT growth ratings of PAR participants?
5. What are teachers' perceptions about their experience in PAR and how has participation in PAR impacted their instructional practices?

Study Design

This study used elements of a mixed methods design, more specifically the Quan-Qual Model or explanatory mixed methods design, by combining quantitative and qualitative approaches (Creswell, 2014; Gay, Mills & Airasian, 2006).

Quantitative Method-The quantitative section of the study used a pre-post design that is grounded in the idea that there are interactions of one variable to another (Lunenberg & Irby, 2007). Additionally, the quantitative analysis requires the researcher to examine both nominal and ordinal data and subject them to statistical analysis (Lodico, Spaulding & Voegtle, 2010). The quantitative section of the study allowed the researcher to describe the impact of PAR within ID based on evidence-based ratings.

Qualitative Method - A qualitative approach as posited by Erickson (2012) was used in this study to:

- Detail information about the impact of implementation
- To identify the nuances of a teacher's understanding of their participation and how it influenced change in practice.

The qualitative study used a narrative to demonstrate the presence of patterns, using language and concepts presented by the responders (Gay, Mills & Airasian, 2006).

Participants

The participants used in this study were non-tenured classroom teachers who were within their first three years of teaching in the district and participated in PAR for a minimum of 8 months. The participants represented a variety of variables representing the diversity of a large urban school district. In total there were 138 teachers in PAR during SY15, 155 in SY16 and 174 in SY17. Of the 138 participants in SY 15, 19 were recommended for continued participation in PAR (PGCPS, 2015a; PAR program Liaison, personal communication, May 9, 2017). The researcher reviewed data to account for any overlap. There were a total of 191 PAR participants identified to still be in the district that met the qualifications of this study.

Methods and Procedures

In the first phase, the researcher collected quantitative data about teacher practice and conducted a data analysis (Gay, Mills & Airasian, 2006). The performance data for teachers was described using performance ratings aligned to rubrics within Danielson's Framework for Teaching for three instructional domains: planning and preparation, classroom environment and classroom instruction. The performance data was further disaggregated into eight instructional components and organized according to the identified independent variables. An excel spreadsheet was created to organize the professional practice ratings and independent variables associated with each participant.

The second phase of the study involved semi-structured interviews with teachers that have participated in PAR. Questions were designed to gain a better understanding of a teacher's perception of PAR and how participation in the program impacted their practice. However, there were instances of unplanned questions in order to maintain the flow of the interview. The

procedures for the three interviews were guided by the following general recommendations (Lodico, Spaulding & Voegtle, 2010):

- Begin the interview by introducing myself
- Remind the participant of the confidentiality of his or her responses
- Strive for neutrality
- Use effective probes

The use of a semi-structured interview, which combines structured and unstructured approaches through the use of both open ended and closed questions, allowed the researcher to obtain important information that could not be obtained from the observation data alone (Creswell, 2002). The interviews were planned for 45 minutes with a specific set of questions to be asked.

Data Collection

This study collected ordinal data in the form of ratings from 8 of the 22 FfT components (Lodico, Spaulding & Voegtle, 2010). Administrators collected evidence and determined ratings for these components by the use of a Likert scale with these descriptors: 1- Unsatisfactory, 2 - Basic, 3 - Proficient and 4 – Distinguished (Danielson, 2011). The eight components were selected because they were mandatory for teacher observations during SY15 – SY17 and it excludes Domain 4, which is not supported by the Consulting Teachers (CT) for PAR.

Teachers' instructional practices were rated during formal observations based on evidence collected during the observation process. Administrators determined the ratings for teachers in alignment with Charlotte Danielson's Framework for teaching (FfT); the observation tool adopted by IPSD. Administrators became certified FfT observers by completing a systemic certification process. In this framework there are 22 components collected into for domains of best instructional practices (Danielson, 2011):

- Domain 1: Planning and Preparation- describes how a teacher organizes the content that students are to learn (Danielson, 2011, p. 26)
- Domain 2: The Classroom Environment- describes the aspects that establish a comfortable and respectful classroom environment that fosters a culture for learning and risk taking (Danielson, 2011, p. 28)
- Domain 3: Classroom Instruction- describes the implementation of plans developed in the first domain (Danielson, 2011, p. 29)
- Domain 4: Professional Responsibility- encompasses the roles outside of and in addition to those in the classroom with students (Danielson, 2011, p. 30)

The domains are further described by the components below.

- Component 1c: Setting Instructional Outcomes – Instructional outcomes should be clear and relate to what it is that students are intended to learn as a result of instruction. Teaching should be considered a purposeful activity that is goal directed and created to achieve specific well-defined planned purposes (Danielson, 2011). The following elements that should be considered when examining instructional outcomes are as follows: clarity, balance, suitability for diverse learner, value, sequence and alignment (Danielson, 2011).
- Component 1e: Designing Coherent Instruction – At this stage in planning a teacher must translate instructional outcomes into learning experiences through a designed plan of action (Danielson, 2011). The teacher is responsible for organizing the environment and managing the learning process. A critical part of the instructional design is its coherence. The teacher is responsible for connecting the following elements to identified

instructional outcomes: learning activities, instructional groups, instructional materials and resources as well as lesson unit and structure (Danielson, 2011).

- Component 1f: Designing Student Assessments – In the attempt to measure the impact of the lesson, teachers should consider both the assessments of learning and assessments for learning (Danielson, 2007). Teachers must plan to assess whether students have achieved the identified instructional outcomes and how these assessments will inform next steps for the teacher and students. Designing student assessments is grounded in the following elements: congruence with instructional outcomes, design of formative assessments, use for planning, criteria and standards (Danielson, 2011).
- Component 2b: Establishing a Culture for Learning – The atmosphere in the classroom that shows both the students and teacher are committed to the importance of the work being undertaken (Danielson, 2011). It is observed through the norms that govern the interactions among individuals in completing activities and demonstrated by a commitment to achieving instructional outcomes. The following elements are required in establishing a culture for learning: importance of content, expectations for learning and achievement, and student pride in work (Danielson, 2011).
- Component 2d: Managing Student Behavior – Learning is impacted when student behavior is out of control. For the chances of learning to increase for students, there must be agreed upon standards of conduct and clear consequences for violation of those standards (Danielson, 2007). The efficient management of student behaviors addresses the following elements: expectations, monitoring of student behavior and response to student misbehavior (Danielson, 2011).

- Component 3b: Using Questioning and Discussion Techniques – The teacher’s ability to question students and lead discussions impacts student learning and is valuable for addressing many instructional purposes such as exploring new concepts, promoting deeper student engagement as well as assessing students’ understanding (Danielson, 2011). The desire for teachers should be to develop questioning skills that result in animated classroom discussions and the extension of knowledge. The teacher demonstrates their skills in questioning and discussion almost exclusively in classroom observations and observers should consider the following elements: quality of questions, discussion techniques and student participation (Danielson, 2011).
- Component 3c: Engaging Students in Learning – This maybe the most important component in the framework (Danielson, 2011). It is through active engagement that students learn complex content. The remaining components of the framework are in service of student engagement. Engaging students in learning are explained through the following elements: activities and assignment, grouping of students, instructional materials and resources as well as structure and pacing (Danielson, 2011).
- Component 3d: Using Assessments in Instruction – As lesson progress teachers should engage in continuous monitoring of students to determine the level of learning (Danielson, 2011). The degree to which students are learning in alignment with what was intended by the teacher should be determined through well designed assessments and allow for midcourse adjustments. Using assessment in instruction requires the following elements: assessment criteria, monitoring of student learning, feedback to students and student self-assessment and monitoring of progress (Danielson, 2011).

For the qualitative phase of this study, the researcher conducted three face-to-face semi-structured interviews and an electronic recording device was used to capture the sessions. The researcher used the qualitative analysis and interpretation to help explain or extend the thinking regarding the quantitative results (Creswell, 2002).

Plan for Analysis

The researcher conducted a comparative analysis of the mean growth ratings of PAR participants, based on their ratings given during the first and last formal observations conducted by administrators, and the characteristics of participants (Creswell, 2002). In addition, the researcher used nonparametric assessments such as the Mann Whitney U Test, the Kruskal-Wallis Test and the Wilcoxon Signed-Rank Test that was used used to determine any significance between identified independent and dependent variables (Lodico, Spaulding & Voegtle, 2010).

The dependent variable was the performance of teachers, as rated during the formal observation process, in eight instructional components. The independent variables related to participant characteristics were as follows:

- School level – Elementary or Secondary
- Year of participation in PAR – SY115, SY16 andSY17
- Title One status of school – FARMS (Free and reduced meals) rate greater than 75%
- Gender – Male or Female

The findings of this quantitative study helped to determine the type of data needed and the most appropriate approach for interviews during the qualitative part of the study (Creswell, 2014).

The interview was transcribed using software application called Rev.com. Participant verification occurred by sharing the transcripts with interviewees in order to improve the

validity, credibility and accuracy of the interviews (Harper & Cole, 2012). The researcher organized, coded and analyzed data for qualitative data analysis.

Confidentiality

Prior to the quantitative study the Executive Director for the Office of Research, Evaluation and Testing received a letter describing the study and a request to conduct research. Approval from the executive director required that participants provide consent by signing a form that included: title of the study, name of researcher, purpose of the study, procedures, benefits of the study, participation rights and the right to withdraw from the study. In order to ensure anonymity, teacher names were not included. Each member of the sample received a identification number.

Prior to the qualitative study participants were also given a letter describing the study. During the interview and data analysis process the researcher assigned an alias to each participant to keep their identities confidential. In addition, names and/or information that would allow the participant to be identified were not included in the research.

Section III: Results, Discussions and Conclusions

The purpose of this study was to examine the impact of Peer Assistance and Review (PAR) on the teaching practices of non-tenured teachers as assessed by the teacher observation tool: Framework for Teaching (FFT). This section presents the results of this study and details the answers to the following five research questions:

1. Based on the FFT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 1: Planning and Preparation? The data was disaggregated and analyzed according to three components: 1c-Setting Instructional Outcomes, 1e- Designing Coherent Instruction and 1f-Designing Student Assessments.
2. Based on the FFT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 2: Classroom Environment? The data was disaggregated and analyzed according to two components: 2b- Establishing a Culture for Learning and 2d-Managing Student Behavior.
3. Based on the FFT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 3: Classroom Instruction? The data was disaggregated and analyzed according to three components: 3b-Using Questioning and Discussion Techniques, 3c-Engaging Students in Learning and 3d-Using Assessments in instruction.
4. What significance, if any, does Title One status, participant gender, school level (secondary and elementary) and year of participation have on the mean FFT growth scores of PAR participants?

5. What are teachers’ perceptions about their experience in PAR and how participation in PAR has impacted their instructional practices?

The findings are presented in the following systematic order: response rate and sample characteristics, findings related to each research question, discussion of results, conclusions, limitations, implications for IPSD, limitations and recommendations for future research.

With the help of district staff, the researcher invited 191 PAR participants to participate in the study via email invitations. Of those 191, a total of 87 (45.5% response rate) consented to give the researcher access to their FFT performance data. Table 3 details the characteristics of the sample to include the school year in which the teacher participated in PAR, their school level, gender, and Title One status of the school. As shown in Table 3, the majority of the respondents (64%) were teaching at the elementary level with 19.5% teaching in middle schools and 16.1% teaching in high schools. Almost three quarters (73.6%) were female.

Table 3

Sample characteristics

	Frequency	Percent
School Year		
2015	32	36.8
2016	24	27.6
2017	31	35.6
School Level		
Elementary	56	64.4
Middle	17	19.5

	High	14	16.1
Title I Status			
	No	41	47.1
	Yes	46	52.9
Gender			
	Male	23	26.4
	Female	64	73.6

Preliminary Analysis

Prior to running analyses to assess the research questions, the researcher collected quantitative data about teacher practice and organized it in an excel spreadsheet. The data was further disaggregated by each of the 8 FfT components as well as sample characteristics: gender, Title One status of school, year in PAR, and school level. Once organized the data was subjected to one of three statistical tests:

- Wilcoxon Signed-Rank Test was used to compare two sets of data that come from the same participants to determine whether there was a statistically significant difference.
- Mann Whitney U Test was used to determine if there were statistically significant differences between two groups.
- Kruskal-Wallis Test was used to determine if there were statistically significant differences between three groups.

Each test provides a probability value (p) in which any value less than .05 represents a significant difference.

Following the quantitative analysis three semi-structured interviews were conducted guided by the following general recommendations (Lodico, Spaulding & Voegtle, 2010):

- Begin the interview by introducing myself
- Remind the participant of the confidentiality of his or her responses
- Strive for neutrality
- Use effective probes

The interviews were transcribed using the application Rev.com. Participant verification occurred by sharing the transcripts with interviewees in order to improve the validity, credibility and accuracy of the interviews (Harper & Cole, 2012). The researcher organized and analyzed the interviews to create a summary of responses for qualitative data analysis.

Findings

To determine whether there was any statistically significant growth between the first and last observations of participants, the researcher had to first find the mean performance for each FfT component. The teachers' ratings across eight components during their first and last formal observations are detailed in Table 4. The ratings were coded using a 4-point rating scale: 1= Unsatisfactory; 2 = Basic; 3 = Proficient; and 4 = Distinguished. The component that was most highly rated at the first observation was 1c-Setting Instructional Outcomes (2.45). At the last observation, 3b-Establishing a Culture for Learning and Managing Student Behavior (2.76) had become the most highly rated component. The two lowest rated components for the first observation were 3b-Using Questioning and Discussion Techniques (2.0) and 3d-Using Assessments in Instruction (2.02). At the last observation 3d-Using Assessments in Instruction

(2.35) was once again one of the two lowest rated components, but it was now coupled with 1f- Designing Student Assessments (2.47).

Table 4

Averages for the eight components at the first and last formal observations

Components		Formal Observations					
		First			Last		
		<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
1c	Setting Instructional Outcomes	87	2.45	0.66	87	2.64	0.71
1e	Designing Coherent Instruction	87	2.30	0.75	85	2.64	0.70
1f	Designing Student Assessments	87	2.03	0.71	85	2.47	0.70
2b	Establishing a Culture for Learning	87	2.37	0.57	86	2.76	0.46
2d	Managing Student Behavior	87	2.37	0.72	85	2.71	0.70
3b	Using Questioning and Discussion Techniques	87	2.00	0.53	85	2.48	0.59
3c	Engaging Students in Learning	87	2.18	0.62	85	2.59	0.58
3d	Using Assessments in Instruction	87	2.02	0.63	84	2.35	0.61

Research Questions 1-3. These questions posed the following queries:

1. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 1: Planning and Preparation?
(The data was disaggregated and analyzed according to three components: 1c-Setting Instructional Outcomes, 1e- Designing Coherent Instruction and 1f-Designing Student Assessments.)

2. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 2: Classroom Environment? (The data was disaggregated and analyzed according to two components: 2b- Establishing a Culture for Learning and 2d-Managing Student Behavior.)
3. Based on the FfT observation ratings, how has participation in PAR impacted the professional practice ratings of teachers in Domain 3: Classroom Instruction? (The data was disaggregated and analyzed according to three components: 3b-Using Questioning and Discussion Techniques, 3c-Engaging Students in Learning and 3d-Using Assessments in instruction.)

Table 5 displays the mean score, standard deviation, Z score and *p* value for each of the 8 FfT components for both the first and last observations. In order to determine the statistical significance of the growth experienced by the teachers who participated in the PAR program, Wilcoxon signed-rank tests were conducted between the first and last formal observations for each of the eight components. As shown in Table 5, the growth in every area was highly significant. There were statistically significant differences in the first and last observation ratings for all three domains. The least significant change was for component 1c-Setting instructional outcomes. It should be noted that 1c was also the highest rated during the first observation. The most significant difference occurred for component 3b-Using Questioning and Discussion Techniques. It is also noted that 3b was the lowest rated component for the first observation.

Table 5

Growth from first to last formal observation

	Components	<i>N</i>	Formal Observations				Wilcoxon Signed-Rank Tests	
			First		Last		<i>z</i>	<i>p</i>
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
1c	Setting Instructional Outcomes	87	2.45	0.66	2.64	0.72	2.10	0.036
1e	Designing Coherent Instruction	85	2.31	0.76	2.64	0.71	2.96	< .001
1f	Designing Student Assessments	85	2.05	0.71	2.47	0.70	4.09	< .001
2b	Establishing a Culture for Learning	86	2.38	0.56	2.76	0.46	4.72	< .001
2d	Managing Student Behavior	85	2.38	0.72	2.71	0.70	3.23	< .001
3b	Using Questioning/Discussion Techniques	85	2.01	0.52	2.48	0.59	5.14	< .001
3c	Engaging Students in Learning	85	2.18	0.62	2.59	0.58	4.47	< .001
3d	Using Assessments in Instruction	84	2.04	0.63	2.35	0.61	3.65	< .001

Research Question 4. This question was stated as follows: What significance, if any, does Title One status, participant gender, school level (secondary and elementary), and year of participation have on the mean FFT growth ratings of PAR participants? The researcher began by finding the mean scores for each of the 8 components based on gender, Title 1 status, school level and school year. A series of comparisons were conducted to determine if there were significant differences in the observational ratings across the eight components based on the aforementioned variables. The ratings were assessed for the first observation, the last observation and for the growth from the first to the last observation. To assess growth, difference scores were computed

by subtracting the first observation ratings from the last observation ratings. Mann-Whitney *U* tests were conducted to assess differences by gender and Title I status, and Kruskal-Wallis tests were used to assess differences by school year and school level. Results are presented in Tables 6 through 9. Table 6 displays the mean ratings, standard deviations, mean growth and *p* values for both male and female teachers in each of the 8 FFT components.

Table 6

Rating comparisons by Gender

		Gender						<i>Mann-Whitney</i> <i>U</i>	<i>p</i>
		Male			Female				
		<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
<u>First Observation</u>									
1c	Setting Instructional Outcomes	23	2.17	0.78	64	2.55	0.59	543.0	.037
1e	Designing Coherent Instruction	23	2.04	0.83	64	2.39	0.70	564.0	.072
1f	Designing Student Assessments	23	1.87	0.63	64	2.09	0.73	610.0	.186
2b	Establishing a Culture for Learning	23	2.30	0.56	64	2.39	0.58	685.0	.572
2d	Managing Student Behavior	23	2.35	0.83	64	2.37	0.68	686.0	.594
3b	Using Questioning and Discussion Techniques	23	2.00	0.60	64	2.00	0.50	736.0	1.000
3c	Engaging Students in Learning	23	2.17	0.58	64	2.19	0.64	722.0	.878
3d	Using Assessments in Instruction	23	2.00	0.52	64	2.03	0.67	716.0	.825

table continues

As shown in Table 6, females were rated significantly higher in Setting Instructional Outcomes during the first formal observation ($U = 543.0, p = .037$), and males showed the greatest growth in that same component ($U = 530.0, p = .030$). With the exception of 1c-Setting Instructional Outcomes, there were no statistically significant differences between the ratings of male and female teachers.

Table 6 (continued)

Rating comparisons by Gender

		Gender						<i>Mann-Whitney</i> <i>U</i>	<i>p</i>
		Male			Female				
		<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
<u>Last Observation</u>									
1c	Setting Instructional Outcomes	23	2.70	0.82	64	2.63	0.68	677.0	.504
1e	Designing Coherent Instruction	22	2.64	0.85	63	2.63	0.66	667.0	.767
1f	Designing Student Assessments	22	2.32	0.78	63	2.52	0.67	602.5	.308
2b	Establishing a Culture for Learning	23	2.65	0.49	63	2.79	0.45	614.5	.143
2d	Managing Student Behavior	22	2.73	0.63	63	2.70	0.73	689.0	.965
3b	Using Questioning and Discussion Techniques	22	2.41	0.50	63	2.51	0.62	617.5	.392
3c	Engaging Students in Learning	22	2.45	0.60	63	2.63	0.58	573.0	.153
3d	Using Assessments in Instruction	22	2.27	0.70	62	2.37	0.58	640.5	.635
<u>Growth</u>									
1c	Setting Instructional Outcomes	23	0.52	0.90	64	0.08	0.80	530.0	.030
1e	Designing Coherent Instruction	22	0.59	1.10	63	0.24	0.95	566.5	.183

1f	Designing Student Assessments	22	0.45	0.80	63	0.41	0.89	670.0	.806
2b	Establishing a Culture for Learning	23	0.35	0.65	63	0.38	0.63	714.0	.909
2d	Managing Student Behavior	22	0.36	0.79	63	0.32	0.93	656.0	.694
3b	Using Questioning and Discussion Techniques	22	0.36	0.66	63	0.51	0.72	605.5	.334
3c	Engaging Students in Learning	22	0.32	0.72	63	0.44	0.76	652.5	.658
3d	Using Assessments in Instruction	22	0.27	0.55	62	0.32	0.76	651.0	.724

Table 7 displays the mean ratings, mean growth, standard deviations, and *p* values for teachers in both Title 1 and Non- Title 1 schools for each of the 8 FfT components. Likewise, a significantly higher mean rating was observed in Setting Instructional Outcomes during the first formal observation for teachers in schools with Title I status ($U = 675.5, p = .011$), and teachers in schools without Title I status showed the greatest growth in that same component ($U = 718.0, p = .036$). With the exception of 1c-Setting Instructional Outcomes, there were no statistically significant differences between the ratings of teachers based on the Title 1 status of the school.

Table 7

Rating comparisons by Title I status

		Title I Status						<i>Mann-Whitney</i> <i>U</i>	<i>p</i>
		No			Yes				
		<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
<u>First Observation</u>									
1c	Setting Instructional Outcomes	41	2.27	0.67	46	2.61	0.61	675.5	.011
1e	Designing Coherent Instruction	41	2.20	0.72	46	2.39	0.77	789.0	.154
1f	Designing Student Assessments	41	2.07	0.65	46	2.00	0.76	893.5	.646
	Establishing a Culture for							877.0	.519
2b	Learning	41	2.32	0.57	46	2.41	0.58		
2d	Managing Student Behavior	41	2.32	0.72	46	2.41	0.72	880.0	.553
	Using Questioning and							868.0	.416
3b	Discussion Techniques	41	1.95	0.44	46	2.04	0.60		
3c	Engaging Students in Learning	41	2.22	0.65	46	2.15	0.60	884.5	.571
3d	Using Assessments in Instruction	41	2.10	0.63	46	1.96	0.63	836.0	.296
<u>Last Observation</u>									
1c	Setting Instructional Outcomes	41	2.63	0.73	46	2.65	0.71	933.0	.920
1e	Designing Coherent Instruction	40	2.65	0.77	45	2.62	0.65	858.5	.678
1f	Designing Student Assessments	40	2.45	0.68	45	2.49	0.73	871.0	.774
	Establishing a Culture for							895.0	.746
2b	Learning	41	2.78	0.42	45	2.73	0.50		
2d	Managing Student Behavior	40	2.70	0.65	45	2.71	0.76	864.0	.725

3b	Using Questioning and Discussion Techniques	40	2.53	0.60	45	2.44	0.59	849.0	.612
3c	Engaging Students in Learning	40	2.63	0.54	45	2.56	0.62	862.5	.695
3d	Using Assessments in Instruction	39	2.33	0.62	45	2.36	0.61	862.5	.880
<u>Growth</u>									
1c	Setting Instructional Outcomes	41	0.37	0.86	46	0.04	0.82	718.0	.036
1e	Designing Coherent Instruction	40	0.45	0.99	45	0.22	1.00	785.5	.290
1f	Designing Student Assessments	40	0.38	0.74	45	0.47	0.97	843.5	.596
2b	Establishing a Culture for Learning	41	0.46	0.64	45	0.29	0.63	798.5	.231
2d	Managing Student Behavior	40	0.38	0.90	45	0.29	0.89	840.0	.575
3b	Using Questioning and Discussion Techniques	40	0.55	0.60	45	0.40	0.78	810.0	.383
3c	Engaging Students in Learning	40	0.43	0.78	45	0.40	0.72	889.0	.916
3d	Using Assessments in Instruction	39	0.23	0.58	45	0.38	0.81	775.5	.306

Table 8

Rating comparisons by school year

	School Year									Kruskal- Wallis Test		
	2015			2016			2017			□□	p	
	N	Mean	SD	N	Mean	SD	N	Mean	SD			
<u>First Observation</u>												
1c	Setting Instructional Outcomes	32	2.44	0.56	24	2.58	0.58	31	2.35	0.80	1.24	.537
1e	Designing Coherent Instruction	32	2.38	0.66	24	2.25	0.74	31	2.26	0.86	0.33	.847
1f	Designing Student Assessments	32	2.13	0.61	24	1.96	0.75	31	2.00	0.78	0.83	.660
2b	Establishing a Culture for Learning	32	2.31	0.54	24	2.50	0.66	31	2.32	0.54	1.63	.444
2d	Managing Student Behavior	32	2.34	0.75	24	2.46	0.78	31	2.32	0.65	0.72	.696
3b	Using Questioning and Discussion Techniques	32	1.97	0.54	24	2.04	0.55	31	2.00	0.52	0.26	.878
3c	Engaging Students in Learning	32	2.16	0.68	24	2.29	0.55	31	2.13	0.62	0.91	.635
3d	Using Assessments in Instruction	32	2.03	0.60	24	2.00	0.59	31	2.03	0.71	0.05	.976
<u>Last Observation</u>												
1c	Setting Instructional Outcomes	32	2.59	0.80	24	2.75	0.68	31	2.61	0.67	1.05	.590
1e	Designing Coherent Instruction	32	2.62	0.75	22	2.73	0.70	31	2.58	0.67	0.54	.763

1f	Designing Student Assessments	32	2.47	0.67	22	2.45	0.74	31	2.48	0.72	0.16	.923
2b	Establishing a Culture for Learning	32	2.81	0.40	23	2.87	0.34	31	2.61	0.56	4.46	.108
2d	Managing Student Behavior	32	2.69	0.69	22	2.82	0.73	31	2.65	0.71	0.43	.808
3b	Using Questioning and Discussion Techniques	32	2.59	0.56	22	2.55	0.60	31	2.32	0.60	3.30	.192
3c	Engaging Students in Learning	32	2.69	0.54	22	2.73	0.55	31	2.39	0.62	6.81	.033
3d	Using Assessments in Instruction	32	2.50	0.57	21	2.38	0.59	31	2.16	0.64	4.70	.095

table continues

Table 8 (continued)

Rating comparisons by school year

	SchoolYear									Kruskal- Wallis Test		
	2015			2016			2017			□□	p	
	N	Mean	SD	N	Mean	SD	N	Mean	SD			
<u>Growth</u>												
1c	Setting Instructional Outcomes	32	0.16	0.81	24	0.17	0.92	31	0.26	0.86	0.27	.876
1e	Designing Coherent Instruction	32	0.25	0.95	22	0.45	1.14	31	0.32	0.94	0.81	.666
1f	Designing Student Assessments	32	0.34	0.79	22	0.45	1.10	31	0.48	0.77	0.37	.830
2b	Establishing a Culture for Learning	32	0.50	0.72	23	0.30	0.56	31	0.29	0.59	2.55	.279
2d	Managing Student Behavior	32	0.34	0.94	22	0.32	0.95	31	0.32	0.83	0.03	.984
3b	Using Questioning and Discussion Techniques	32	0.63	0.71	22	0.45	0.67	31	0.32	0.70	3.39	.184
3c	Engaging Students in Learning	32	0.53	0.84	22	0.45	0.60	31	0.26	0.73	2.09	.352
3d	Using Assessments in Instruction	32	0.47	0.72	21	0.33	0.58	31	0.13	0.76	2.19	.335

Table 8 shows the mean ratings, mean growth, standard deviations, Chi Squares and P Values for teachers that participated in PAR in either SY15, SY16 or SY17 in each of the 8 FfT components. With regard to school year, Table 8 shows that no significant differences were observed for ratings during the first formal observations, but teachers' last observations during 2016 had slightly higher ratings and teachers' last observations during 2017 had slightly lower ratings ($\chi^2 = 6.81, p = .033$).

Table 9

Rating comparisons by school level

	School Level									Kruskal- Wallis Test		
	Elementary			Middle			High			□□	<i>p</i>	
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>			
<u>First Observation</u>												
1c	Setting Instructional Outcomes	56	2.61	0.56	17	2.00	0.71	14	2.36	0.75	10.64	.005
1e	Designing Coherent Instruction	56	2.43	0.71	17	1.82	0.81	14	2.36	0.63	7.90	.019
1f	Designing Student Assessments	56	2.14	0.70	17	1.65	0.70	14	2.07	0.62	6.40	.041
2b	Establishing a Culture for Learning	56	2.45	0.60	17	2.12	0.49	14	2.36	0.50	4.49	.106
2d	Managing Student Behavior	56	2.43	0.60	17	2.35	1.00	14	2.14	0.77	2.59	.274
3b	Using Questioning and Discussion Techniques	56	2.02	0.59	17	2.00	0.35	14	1.93	0.48	0.32	.852
3c	Engaging Students in Learning	56	2.20	0.64	17	2.00	0.61	14	2.36	0.50	2.48	.290
3d	Using Assessments in Instruction	56	2.02	0.70	17	2.06	0.24	14	2.00	0.68	0.06	.970
<u>Last Observation</u>												
1c	Setting Instructional Outcomes	56	2.55	0.74	17	2.82	0.64	14	2.79	0.70	2.97	.227
1e	Designing Coherent Instruction	54	2.54	0.69	17	2.76	0.66	14	2.86	0.77	3.67	.160

1f	Designing Student Assessments	54	2.39	0.71	17	2.59	0.71	14	2.64	0.63	2.88	.237
2b	Establishing a Culture for Learning	55	2.73	0.49	17	2.82	0.39	14	2.79	0.43	0.51	.773
2d	Managing Student Behavior	54	2.69	0.67	17	2.53	0.72	14	3.00	0.78	2.99	.224
3b	Using Questioning and Discussion Techniques	54	2.44	0.63	17	2.59	0.51	14	2.50	0.52	0.71	.703
3c	Engaging Students in Learning	54	2.56	0.60	17	2.53	0.62	14	2.79	0.43	1.83	.401
3d	Using Assessments in Instruction	54	2.33	0.58	16	2.31	0.60	14	2.43	0.76	0.67	.716

table continues

Table 9 (continued)

Rating comparisons by school level

	School Level									Kruskal-Wallis Test		
	Elementary			Middle			High			□□	<i>p</i>	
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>			
<u>Growth</u>												
1c	Setting Instructional Outcomes	56	0.00	0.82	17	0.82	0.73	14	0.43	0.65	15.98	.001
1e	Designing Coherent Instruction	54	0.09	0.92	17	0.94	1.14	14	0.50	0.76	8.91	.012
1f	Designing Student Assessments	54	0.22	0.86	17	0.94	0.90	14	0.57	0.51	9.81	.007
2b	Establishing a Culture for Learning	55	0.25	0.62	17	0.71	0.59	14	0.43	0.65	6.24	.044
2d	Managing Student Behavior	54	0.24	0.85	17	0.18	0.88	14	0.86	0.95	5.55	.062
3b	Using Questioning and Discussion Techniques	54	0.41	0.77	17	0.59	0.62	14	0.57	0.51	1.34	.512
3c	Engaging Students in Learning	54	0.37	0.78	17	0.53	0.80	14	0.43	0.51	0.37	.833
3d	Using Assessments in Instruction	54	0.30	0.77	16	0.25	0.68	14	0.43	0.51	0.54	.763

Finally, Table 9 shows the mean ratings, mean growth, standard deviations, Chi Squares and p values for teachers in either elementary, middle or high schools for each of the 8 FfT components. Table 8 shows significant differences by school level with regard to ratings during the first formal observation on three components: Setting Instructional Outcomes, Designing Coherent Instruction, and Designing Student Assessments. Elementary school teachers were rated the highest and middle school teacher were rated the lowest on these three components. Consequently, significant differences were observed in the level of growth in these three areas, as well as in the Establishing a Culture for Learning component, with the middle school teachers experiencing the greatest growth in all four areas and elementary school teachers experiencing the least growth.

Research Question 5. This question asked, “What are teachers’ perceptions about their experience in PAR and how has participation in PAR impacted their instructional practices?” Responses to interview questions provided data about PAR participants’ perceptions of how participation in PAR impacted their professional practice. Table 10 shows the interview questions and a summary of responses for each interviewee.

Table 10

INTERVIEW SUMMARIES

#	Question	Interviewee 1	Interviewee 2	Interviewee 3
1	Was the purpose of your participation in PAR explained to you at any time? How was it explained?	Yes, by the principal and assistant principal.	No, but the PAR consultant explained that I needed assistance with my teaching craft.	No, just received an email from the school; only explained by the PAR consultant.
2	Do you feel the PAR program helped you better understand instructional practices as defined by the FFT?	Yes, I’m more comfortable putting together plans to meet clear instructional goals.	Yes, she helped me understand how the district looks at instruction.	Yes
3	Which of the 8 components best represented your area of needs and/or concerns prior to your participation in PAR?	1c, 1f	2d	3b
4	Which of the 8 components best represented your area of strength prior to your participation in PAR?	2d	None	2d

5	Do you believe that your participation in PAR impacted your instructional practices?	Yes	Yes	Yes, by helping me understand how to express what the children are learning, what it looks like and sounds like
5a	In your opinion, which components were impacted the most?	1c	2d, then 3c	All
5b	In your opinion which components were impacted the least?	1f	3b	All
5c	Why?	If the outcomes are clear everything else falls into place.	After I was able to manage classroom behavior, then I could focus on instruction; I'm still attempting to grow with using question and discussion techniques	The learning covered all the domains.

Based on responses, participants felt that participation in the PAR program helped them to better understand instructional practices as described by FFT. Additionally, all interviewees believed that participation in PAR positively impacted their practice. There was consensus that the use of evidence was used to guide the learning of interviewees. Interviewee 1 stated, “Ratings let me know how well I’m doing. The best evidence was how the students were doing.” Interviewee 2 agreed, “I was given specific examples to help me see what areas I needed to address.” The 3rd interviewee spoke to how the use of evidence supported his growth, “The

consultant used the observation to point out how to strengthen my weak areas and the scale tells you exactly what you need to work on.”

In their responses each participant noted the facilitation of their consulting teachers as a major contributor to their growth. Interactions with the consulting teachers were typically weekly and varied from co-lesson planning, to modeling of lessons. Participants also spoke to their learning as a result of participation in trainings offered by the consulting teachers. The respondents appreciated the relationship they were able to develop with their respective consulting teacher with one stating that “she wished she could have spent more time with them.” All participants appreciated the consulting teachers coming to the schools and helping out in their classrooms. In two of the 3 cases, lesson were co-created, modeled and implemented together. The third interviewee did mention that he wished the consulting teacher had actually modeled the lesson with students. Support during authentic situations allowed for interjections during the lesson, which one interviewee appreciated. Consulting teachers were able to support teachers with things, such as classroom set-up, which provided assistance for authentic classroom challenges and the teachers appreciated it.

#	Question	Interview 1	Interview 2	Interview 3
6	How was evidence used to guide your learning and/or measure your change in practice? Was the use of evidence and ratings helpful?	Ratings let me know how well I'm doing; the best evidence is how the students are doing.	Both principal and PAR consultant observed and PAR consultant would tell me ways I could improve. They gave me specific examples to help me see what areas to address.	The consultant used the observation to point out how to strengthen my weak areas, and the scale tells you exactly what you need to work on.

7a	About how often did you interact with your consulting teacher?	Weekly	Weekly	Weekly
7b	Describe the interactions	Emails to schedule and stops by, asks if I have concerns, and how she can help	Email and face-to-face. She helped put me at ease.	Face-to-face
8	Which activities were facilitated during your participation in PAR?			
8a	Attending trainings with the CT	Yes	Yes	Yes – didn't go with me but recommended them
8b	Peer observations	Yes	Yes	Yes
8c	Setting and reviewing professional goals and practice ratings	Yes	Yes	No
8d	Modeling	Yes	Not with students present	Yes
8e	Other	Introduced to other teachers in the program	Prepare lesson plans together	Interjections during teaching
9	Do you believe that any of these variables impact a participant's experience in PAR, either positively or negatively influencing change in instructional practices?			
9a	Gender	No	No	No
9b	Title I	No	Yes - Title I is much more demanding	No
9c	School level	No	No	No
9d	Year of participation	Yes - 2nd year better	Yes - 1st year of teaching most	No

			important	
10	What would you recommend that would have improved your experience as a PAR participant?	PAR teachers need to be very patient	PAR consultant should do modeling with students present	More time with the mentor, have the county information and expectations easier to understand

Overall, the interviewees believed that participation in PAR helped to improve their practice. Each participant’s greatest area of need was different based on personal perception and first observation ratings. The teacher’s responses indicated that they did not believe that context - gender, school level, school-year and Title 1 status – impacted a teacher’s participation in PAR.

Discussion and Conclusions

The purpose of this study was to examine the impact of Peer Assistance and Review (PAR) on the teaching practices of non-tenured teachers as assessed by the teacher observation tool, Framework for Teaching (FFT). In examining both quantitative and qualitative data, the researcher considered the interaction of three elements- evidence, context and facilitation-that can be used as a guide for implementing evidence based practices (Helfrich, 2010). Successful implementation of evidence based practices requires a clear understanding of (a) methods for collecting and utilizing evidence, (b) the complex role that facilitation plays in ensuring a successful change process, and (c) the importance of considering context (Rycroft-Malone, 2004). Resulting data from this inquiry clearly demonstrated that, overall, PAR participants demonstrated a positive change in ratings from their first to last formal observations.

Research suggests that many teachers do not have an accurate understanding of or the ability to define effectiveness or qualify performance (Jacob & McGovern, 2015). In addition, it

is suggested that districts should develop a clear definition of development that teachers could demonstrate through observable and measurable practices. For this study, research participants' responses indicate that the use of evidence and ratings helped them to better understand how practice was defined, how growth was measured and provided for clear examples of improvement.

The best professional learning opportunities primarily take place in schools and classrooms so that teachers can find solutions to authentic problems (Croft, Cogshall, Dolan & Powers, 2010; Hawley & Valli, 2008; Jacob & McGovern, 2015). In addition, researchers have begun to acknowledge the important role that contextual factors play in facilitating or inhibiting the implementation of practices (Helfrich et al., 2010; Rycroft-Malone, 2004). Evidence from this study suggests that the consulting teachers' visits to the school and supporting teachers in their own classrooms had a positive influence on teachers' perceptions about being in PAR. Although all interviewees participated in recommended professional developments outside of their schools, they expressed that the greatest learning happened in their classes. One interviewee suggested that one improvement for the PAR program would be to mandate that all consulting teachers model in front of the students. The context for the facilitation of support seemed to make a difference, but this research data suggests that the contexts identified for this study - gender, school level, year of participation, and Title 1 status of school – for most components did not demonstrate statistically significant differences in observation ratings. However, significant differences in ratings were noted for 4 components in comparing elementary and middle school teachers.

Facilitation represents the process of enabling others to implement evidence into practice. To this end, facilitators must maneuver through a complexity of roles that require specific skills

and knowledge. The specific needs of each individual teacher often dictate the specific role that the facilitator will play (Rycroft-Malone, 2004). These research findings show that the way in which support was facilitated by consulting teachers had a positive influence on the participants' experiences. Assisting with classroom set up to reviewing lesson plans provided varying opportunities for consulting teachers to work with teachers to address specific needs as it related to best practice. Working with consulting teachers in their classrooms allowed participants to be more comfortable and contributed to trusting relationships with the consulting teachers.

In comparing the qualitative data and quantitative data it was clear that participation in PAR had an impact on practice and teachers believed that their participation was beneficial. Participants identified the use of evidence to define practice as important to their change in practice, appreciated how support was facilitated by consulting teachers and believed that the sample characteristics should not impact participation in the program. Additionally, setting instructional outcomes and designing student assessments were rated as one of the lowest components for all groups.

While the findings from this study provided clarity about the impact of PAR on instructional practice, it did not actually confirm that PAR was the primary reason for the positive change in ratings. Additional research on this topic will need to be conducted to determine PAR's isolated impact on teacher practice.

Implications for the School District

The results of this study have several implications that should be considered by the district for both policy and practice. It is clear that consistent and targeted professional development, specifically PAR, can have a positive impact on the instructional practices of

teachers; however, there are some factors educational leaders and policy makers should always consider when designing professional development programs. The following ideas may be helpful for IPSD to consider as they look to create a highly effective workforce: (1) common language used by teachers, administrators and district personnel to describe best practice, (2) clear understanding of evidence of practice and what growth in practice looks like, and (3) development occurs most often when support is provided in authentic settings. Teachers appreciate the relationships that are developed through one-to-one support and this contributes to their development.

1. One challenge to building the capacity of teachers in a large urban district can be the myriad of personnel, both in and out of schools, who are tasked with improving the instructional practices of teachers. IPSD should consider how school administrators and district personnel use evidence and ratings, specific to FfT, to support the improvement of teachers. A single vision for improvement could be a significant help for teachers who may receive different messages from different sources like curriculum specialists, instructional coaches, school administrators, mentors, and external evaluators (Jacob & McGovern, 2015). Mixed messages can be a factor in a teacher's understanding of effectiveness or quality performance. Research shows that many teachers believe that their performance ranks at the highest levels of observation ratings, and may feel that there is little room for growth in their instructional practice. The findings in this study support the use of evidence and ratings as being beneficial in a teacher's understanding of their practice contributing to their overall improvement in ratings.
2. District leaders are challenged with making decisions with limited funding. In deciding on the most effective programs for developing teachers, IPSD should consider the best

opportunities to personalize professional development. In order to address the varying needs of teachers, which change based on context, facilitation of support should be flexible. This study demonstrated that support provided primarily in the classroom setting led to a significant difference in ratings of teacher practice as well as positive feelings about participation in PAR. As IPSD evaluates programs, the differentiation of professional development and providing support in the classroom should drive discussions about the allocation of resources.

3. Providing one-to-one support in the school setting is important. In addition, this study presented findings indicating that participants believed that the relationships built with the consulting teachers contributed to their growth in practice. In each interview, the teachers repeated how they appreciated the way they were supported by the consulting teacher and the trusting relationship that had been developed. The facilitation of training was supported by positive working relationships. IPSD would benefit from examining the training provided to consulting teachers in regards to developing trusting professional relationships in order to identify opportunities to duplicate.

Limitations

The study was limited by the fact that data was only collected for the performance ratings of those granting consent to participate. There were 191 teachers available to participate, 91 consent forms were collected and 87 were used for this study. Data for 4 teachers could not be used because the last observation was not conducted. The 191 total teachers identified for this study did not include former PAR participants that were no longer in the district, whether due to resignation or non-renewal. In addition, interviews included in this study were conducted with teachers that volunteered to participate.

A second limitation to this study was that it did not control for other influences on teacher practice. Although participants identified PAR as their primary support for growing their practice, the researcher does acknowledge that there are other factors that could have influenced the positive change in teacher performance ratings. In addition, there is not a standardized process for how support is facilitated for teachers. Therefore, this study did not control for how professional development was facilitated by consulting teachers.

Recommendations for Future Investigations

As district leaders look to improve performance outcomes for children, it is equally important to design ways to improve teacher performance. Professional development has been identified as a primary strategy in building teachers' instructional practices. With the many professional development models available further research is needed to determine which programs are the most effective, which elements of the program contribute the most to improvement and what are some opportunities to refine how resources are utilized. This study examined the impact of PAR on teacher practice, as well as teacher's perceptions of how participation in PAR impacted their practice. This study did support that there were significant differences in the ratings for all components from the first to the final observation. Additionally, there was evidence that teachers believed that participation in PAR impacted their practice. The study, therefore made the following recommendations for future studies:

1. Future iterations of this study should include a focus on principal's perceptions of the program and its impact on teacher practice. Teacher growth is influenced when the teacher and administrator agree on how practice is defined and measured. Participation in PAR is based on a principal's referral. Principals' perceptions of the program will impact whether they recommend teachers to PAR for support. Program refinements

could result from feedback provided by the administrator and improve collaboration between the schools and PAR office.

2. This study could be replicated to focus on one of the three elements identified as essential for implementing evidence based practices- evidence, context and facilitation. For example, a study can take a deeper look at the facilitation of support by consulting teachers by focusing on qualitative data relevant to their characteristics. Understanding elements that may possibly enhance teacher/consulting teacher collaboration could provide direction for the investment of resources.
3. This study focused on the PAR program but resources are committed to programs throughout districts. Further research is needed to determine the impact of many of the commonly used professional development models. From one-day trainings to afterschool professional development, data is needed to support whether the trainings yielded the desired outcomes. There are opportunities for districts to realign resources and personalize how professional development is delivered to teachers. Research on different professional development can provide evidence to support district leaders in making critical decisions.

Appendices

Appendix A

Request to the Executive Director of Testing and Evaluation -E-mail

Dear Dr. Sunmonu,

My name is David Curry and I am an Instructional Director for the Prince George's Public School District. I am also a doctoral candidate at the University of Maryland, College Park. For my dissertation, I have chosen to study the impact of Peer Assistance and Review (PAR) on teacher practice as well as their perceptions about their experiences in the program. I am conducting my research under the direction of Dr. Stephanie Timmons- Brown. As the Executive Director, I believe that you could assist by identifying former PAR participants in the district.

I am respectfully requesting that you forward the attached email (Appendix B), on behalf of Research and Evaluation, to former PAR participants in order to solicit their consent. Consent would allow the use of their first and final formal observation ratings, given by the principal, to be used in this research study. The Prince George's County IRB office has approved this study.

Please feel free to contact me if you need additional clarification. I can be reached at 240-413-0449 or by email at curryclan2@gmail.com. Thank you in advance for distributing the attached email to former PAR participants.

D. Curry

Appendix B

Request for Teacher Consent - Email

Dear Teacher,

The Department of Testing, Research, and Evaluation has given me permission to recruit former PAR participants in Prince George's County to conduct a study as part of my doctoral program at the University of Maryland College Park. I am conducting my research under the direction of Dr. Stephanie Timmons- Brown, my advisor at UMCP. I have chosen to analyze the impact of Peer Assistance and Review (PAR) on teacher practice.

I am respectfully requesting to use your performance ratings from your first and final observations, given by the principal during your year in PAR, in this research study. In order to ensure anonymity teacher names will not be used in the study. Each member of the sample would receive a unique identification number. I intend to maintain sole ownership of the data collected. If you are among the first 100 participants to complete the consent form, you will automatically be entered into a random drawing to receive one of four \$25 gift cards.

Please provide your consent by completing the consent form attached. Once completed you can email it to curryclan2@gmail.com. Please feel free to contact me via email or phone, [240413-0449](tel:240413-0449), if you need additional clarification.

Thank you in advance for your assistance and support.

David Curry

Appendix C

PAR Participant Interview Questions

1. Was the purpose of your participation in PAR explained to you at anytime? How was it explained?
2. Do you feel the PAR program helped you better understand instructional practices as defined by the FFT?
3. Which of the 8 components best represented your area of needs and/or concerns prior to your participation in PAR?
4. Which of the 8 components best represented your area of strength prior to your participation in PAR?
5. Do you believe that your participation in PAR impacted your instructional practices? In your opinion, which components were impacted the most? In your opinion which components were impacted the least? Why?
6. How was evidence used to guide your learning and/or measure your change in practice? Was the use of evidence and ratings helpful?
7. About how often did you interact with your consulting teacher? Describe the interactions.
8. Which activities were facilitated during your participation in PAR? (e.g. attending trainings with the CT, peer observations, setting and reviewing professional goals and practice ratings, modeling)

9. Do you believe that any of these variables impact a participant's experience in PAR, either positively or negatively influencing change in instructional practices? (gender, Title One status of school, school level and year of participation)
10. What would you recommend that would have improved your experience as a PAR participant?

Appendix D

Interview #1

Interviewer (DC): Today is December 2nd for the study, The Impact of Peer Assistance and Review on Teacher Practice. This is David Curry and I have I-1. At this time we will be conducting an interview to last no more than 45 minutes.

In front of you, you have a set of the questions, so you can refer to at any time. The structure for the interview is semi-structured, so if there are some questions that arise as a result of your responses, I may ask additional questions. Alright?

Just to begin, was the purpose of your participation in PAR explained to you at any time?

Interviewee 1 (I-1): The purpose of the part was explained to me when my PAR consultant came and talked to me. It wasn't explained to me before by anyone else, I just was told by my principal that I was being put in a PAR Program, but nothing of elaboration was explained to me before my PAR consultant came.

DC: When you say, it was explained, how much did they say you were being in the program or what it was supposed to do for you?

I-1: Just to improve my teaching profession. There was evidence shown, which was informal observations and things of that nature that my principal believed that I needed assistance, I needed an outside person to come in and assist me with my teaching craft. That was the reasoning behind me being put into the PAR Program.

DC: Do you feel the PAR Program helped you better understand instructional practices as defined by the FFT?

I-1: I believe it did. I believe that having that one-on-one interaction with my PAR consultant and having her breakdown the instructional practices and just the components and everything that FFT comes with, it definitely helped me understand how to do certain things and how to kind of look at FFT and improve those area components. It mostly helped me understand how the district looked at instruction.

DC: Which of the eight components best represent your area of needs or improvements prior to your participation in PAR? What I'm going to do is I'm actually going to go over those areas for you, just as a refresher.

The eight components are:

1C) Setting instructional outcomes. Planning and preparation.

1E) Design a coherent instruction. Planning and preparation.

Also in planning and preparation:

1F) Design of assessment.

2B) Establishing a culture of learning.

2D) Managing behavior.

3B) Using questions and discussion techniques.

3C) Classroom instruction.

3D) Use of assessments.

We have three in planning, three in culture in two in classroom instruction. Just based on those, then at any time if you want me to go over them I will. Which ones do you believe was your greatest area of need before you entered PAR?

I-1: I think the greatest area of need was managing student behavior. First year was tough and just those behaviors I didn't have, I didn't have prior, my student teaching experience didn't lend me to see how those behaviors were dealt with. The behavior that I had in that type of setting and the way my school is, so it was, student behavior for sure was the area of need that I needed help, I needed growth in.

DC: That was the greatest. Were there other areas you did look to grow in?

I-1: Well, in most of them, personally the instructional ones I think it starts with behavior, so when I was able to improve the behavior and the structure in my procedures and routines, the classroom instruction and

everything else kind of lends itself to improve them as well. You have to start with the behavior piece.

DC: Got you. With that being said, which of the eight components best represented your area of strength prior to the participation of PAR?

I-1: Student relationship is not in those eight components is it?

DC: Once again, you have from planning and preparation you have: setting outcomes, design a coherent instruction, design of assessments. From environment, you have: establishing a culture for learning, you have managing behavior. From classroom instruction, you have: question and a discussion techniques, actual classroom instruction, which involves grouping activities and so for and then 3D) which is using assessments in the classroom.

I-1: Do I have to have strength?

DC: No, no, not at all.

I-1: No, honestly as I reflected and sitting here now I don't think any of those things I was strong in. I really needed assistance to help each one of those components.

DC: Do you believe that your participation in PAR impacted your instructional practices?

I-1: Yes. As stated before, I believe that having that one-on-one mentor to kind of guide me and assist me got me to a point where it definitely improved my practices.

DC: Going back and looking at those eight components, as a result of your participation or during your participation, which one of those components do you think was impacted the most?

I-1: So, it goes from student behavior, after I was able to manage the student behavior than actually being able to do what, teach was ... 3c classroom instruction I think was the one that was impacted the most. I was actually able to facilitate and do what a teacher is supposed to do instead of manage all these behaviors. I was able to get a hold on that, so then I was able to actually teach and do what was needed.

DC: If you had to put them in order, in your opinion, which components were impacted the least?

I-1: I think one thing and this has been on my goal setting sheet a couple of years now, I think it's still 3b using question and discussion techniques. I could still grow in that. I think that has been impacted the least, but I'm still attempting to grow with that component.

DC: As a participant of PAR a formal observation is conducted by your consultant teacher and also your principal. For you, how was this evidence used to guide your learning and/or measure your change in practice?

I-1: As stated, those formal observations were done by both my principal and my PAR consultant, they just used what they saw, it was no type of like feelings, it was just straight evidence. They typed up what they saw in there in the classroom and then when we got back to the table and we had post conferences they would let me reflect, but they would also let me know what was going on and what they saw and ways to, especially my PAR consultant, ways to improve certain things, certain behaviors, certain groupings, certain questions, techniques. They used the evidence that they saw when I was being observed to kind of help me and assist me better in my craft.

DC: Do you believe the use of evidence and ratings was helpful to your growth?

I-1: Yes. It was helpful, because it allowed me to see what was actually needed for growth. For example, with my actual student behavior it was as evidence they might say, "Johnny got up while you were trying to teach. You got a one on that." I was able to reflect on myself and then do better next time in the managing student behavior.

DC: About how often and just learning a little bit about the interactions, about how often did you interact with your consultant teacher?

I-1: I interacted with her weekly. I heard from her at least once a week.

DC: Can you describe those interactions?

I-1: It was through email and then she also came to see me face-to-face. One thing I really liked about my PAR consultant, it felt natural. It wasn't forced, we had a really good relationship outside of just her being my

mentor. I think that helped me just relax and feel comfortable and really, 'cause some people might take it and not like being in a program like this. I think her personality and her style allowed me to feel relaxed and actually have her help me. She would come in and we would talk about lesson planning, we would talk about managing student behavior and we would just talk about certain things that helped me in my craft. Like I said, weekly through email, through face-to-face, text, all those types of means of communications was used with my consultant teacher.

DC: You actually started to talk about question number eight, which was, which activities were facilitated during your participation in PAR and so there's different ways that you interact maybe attending trainings with the CT, peer observations, looking at goals, modeling, co-teaching together. What are some of the things that you all did together?

I-1: Their department, they had a professional development one time that I attended, which was really helpful. She obviously would come in and observe me, we did sit and we did set some goals. She really pushed me. I know specifically, I appreciate she was so tough, that I had talked about leaving and she said, no. She was able to kind of convince me to stay and help me through that. We did all those things, we did lesson plans together. I remember, the only time, well, the first time I gotten a four on a formal observation was 'cause of her help, because she helped me with the lesson plan. We sat down and we really did all of those necessary things for the classroom.

DC: Do you believe that any of these variables that I'm about to mention impact a participants experience in the program either positively or negatively, that actually may help or hinder change in practice? That may be gender, and you didn't say much about it, but I didn't know if you were speaking to Title I status of school, the school level. Do you believe it would be different if it was elementary versus secondary or even middle? Actually, when you came into the program, do you think it would've been different if was maybe your second year in the district versus your first year?

I-1: Good question, good question.

Out of those four things you named, I believe that's the three that do impacts a person's experience is Title I status school level in your participation, Not really gender. Male or female wouldn't make a

differenece But I did mention earlier about the school setting and my school being Title I. I did my school teaching not at a Title I school and the difference was just remarkable. I think that impacted my experience in PAR and that's one of the reasons why I was in PAR. School level, yeah, I mean that goes without saying, because whether it's somebody that's not as comfortable with a certain grade or a certain level of schooling then that impacts. But then if you wanted to be in high school then it would be the same. I don't think school level matters. Then the information, I think being in my first year was the best thing for me, because straight out of college, straight out of student teaching just getting me before I either left or I either just said, "I don't care," and did my own thing was important. Definitely do it at year one, the first couple of months of my profession, was effective for me. That impacted me in a positive way.

DC: You mentioned behaviors. Can you talk about your experience and your teaching, your student teaching versus your first year at a Title I school?

I-1: Yes. Student teaching, it was great. If I could've stayed at school, I would have, but I did two sections, I taught first grade and then I taught fifth grade. It was really night and day, it was student who were, and obviously this goes to say with classroom, the teacher the way they have their classroom set up and their instructions and routines. But long story short, it was the structure, routine, the procedures from, and it's the students in general, the population from my student teaching experience to my first year teaching was completely different. Not to say it's a bad thing, because those are the kind of students that I want to make a difference to, so it's a blessing, but coming in first year with everything that's thrown at you was definitely tough to kind of take all those professional responsibilities and then take those behaviors that you don't really know how to deal with, 'cause you've never dealt with them. The Title One community was just different.

DC: Got you. Thank you.

Just finally, what would you recommend that would have improved your overall experience as PAR participant?

I-1: I think one thing that could be improved, and I'm not sure if other teachers do this, but my PAR she never actually modeled a lesson while my students were there. When she was there in the afternoon, after school she would get up and talk to me and kind of walk around and do a lesson

kinda sorta, but it wasn't done with the students there. Being able to see them do it with the setting of student, the type of students that I have would've been neat, but that's really being picky. It is one thing, it would've been cool to see her actually instruct in the classroom.

DC:

Thank you.

This is the end of our interview. Appreciate it.

Appendix E

Interview #2

Interviewer (DC): Thank you Ms I-2, for agreeing to participate in an interview for my study for the impact of PAR on teacher practice. I'm David Curry. I've given you a sample of the questions, that you can use as a reference as we go through. At any time, if you would like to go more in-depth with specific questions, please feel free. If you have any questions for myself, please feel free to ask. Are we okay to move forward?

I-2: Yes.

DC: All right, so the first question, was the purpose of your participation in PAR explained to you at any time? If so, how was it explained?

I-2: It wasn't explained completely until I received my, you guys call PAR, my mentor. I received an email saying that I was in the program and then she kind of explained [crosstalk 00:01:12]-

I-2: Okay, so she explained-

I-2: ... her position was with me. More of what her responsibility was to me. Didn't really talk about how I got into the program or why I was in the program.

DC: Okay, so she actually handled the explanation, not at the school level?

I-2: At the school level, the principle first did an observation. This was my first year ever being in public school teaching, so there were a lot of things I did not know. I've taught for many years, but it has been in private Christian schools. Their ways are very different, and it was a lot I didn't know. Coming into it, I was hired a few days before school opened. They're shooting this at you, they're shooting that you, and I was like, "I don't know if I'm coming or going." I felt like I was on the Indy 500, trying to just catch, and understand what it is they were asking me to do. It was a very confusing time, and the evaluation, to me, didn't go very well. I guess from that, I was given a mentor, which I really appreciate.

DC: That is actually the perfect lead into question number two. Do you feel like the PAR program helped you better understand instructional practices, as defined by the FFT?

I-2: Yes I do.

DC: Okay. Which of the eight components best represented your greatest area of needs, and/or concern, prior to your participation in PAR? When I say eight components, I'm speaking about the framework for teaching of fft. I will read through all of them and you can refer to what you have in front of you. !c setting instructional outcomes, 1e designing coherent instruction, 1f designing assessments-

I-2: Sorry.

DC: No problem. I will repeat. 1f Designing assessments. Then domain 2 which would be 2b establishing a culture for learning, and 2d managing student behavior. Next would be domain 3. 3b- questioning and discussion techniques, 3c classroom instruction, 3d using assessments in the classroom.

I-2: I would say the lingo of each component was not understood. I understood them, but not to the magnitude that Prince George County, I guess, or FFT, was speaking in terms of. So when it came to classroom management, I've never had problems with management of my classes. Setting an atmosphere of learning has never been a problem. However, the definition for what they were looking for, and how you're to respond to it is different. They're looking for a certain lingo, and I wasn't used to the lingo. It was more about how instruction was described.

DC: Gotcha. Understood, and so actually using those same eight components, which one would you select? Which would you say was the one that was identified as the greatest area of concern?

I-2: No questioning during-

DC: Question and discussion techniques-

I-2: ... discussion techniques. So 3b.

DC: Okay. So, which of the eight that I named, and I can name them again, best represented your area of strength, for you going into the PAR

program? Would that have been setting instructional outcomes, designing coherent instruction, designing-

I-2: One at a time, go back to them again. Setting-

DC: 1c Setting instructional outcomes, 1e Designing Coherent Instruction, 1f Designing assessments. Then domain 2 which would be 2b establishing a culture for learning, and 2d managing student behavior. Next would be domain 3. 3b- questioning and discussion techniques, 3c classroom instruction, 3d using assessments in the classroom.

I-2: Okay, I wasn't understanding the lingo for it.

DC: Okay, designing coherent instruction?

I-2: Not understanding completely the lingo for it. What did you mean by it?

DC: The first three components listed are in the planning domain , so to better explain the question, was your greatest area of strength, based on your observation, was it in the planning? Was it in the classroom management area, or environment, which is domain two? Or was it in the classroom instruction domain? Out of those three domains, what was your greatest area of strength going into PAR?

I-2: Greatest area of strength? I was a classroom management-

DC: Management. Okay, so 2D would have been your greatest area of strength?

I-2: Yes.

DC: Thank you. Do you believe that your participation in PAR impacted your instructional practices?

I-2: Definitely.

DC: Can you explain?

I-2: Being in the program gave me what instruction looks like, what it sound like, which helped me to understand, when I'm responding to the questions of the FFT, exactly what I need to explain, so that you as a person, not

being in the classroom, can understand what the children are learning. What does it look like? What does it sound like?

DC: In your opinion, through participation in PAR, which components were impacted the most. So I'll organize it for you again. Were you impacted most in the planning domain, the environment domain, or the classroom instruction domain?

I-2: I would have to say in all domains.

DC: So you think all equally, it impacted all components?

I-2: Yes, because by learning the planning phase, exactly what you're looking for students to learn, what are the expectations, it just covered every domain.

DC: Okay. How is evidence used to guide your learning, and/or measure your change in practice?

I-2: As in evidence for PAR, or-

DC: Well evidence ... So you're in PAR, and part of FFT requires collection of evidence, to give you your rating.

I-2: Oh yeah, okay.

DC: So in that being the case, how was the evidence used to guide your learning? How did this mentor use evidence to guide how you learn?

I-2: My mentor, on the first one, let me know that she was coming in, and to set up an FFT observation. Once I did that, there was a pre-meeting, so that you could go over what I was going to be teaching. From that pre-meeting, some things I needed to tweak, because it wasn't fully understood. Excuse me. Then the lesson was taught. The observation was made. Then there was a post conference. From the post conference, I was able to discuss things that I needed to work on, things that were good, what were my needs. She helped me strengthen those weak areas.

DC: Along with that question, was the use in evidence and ratings helpful for you?

I-2: The use of evidence, as far as how they were rating-

DC: Yes-

I-2: The scales-

DC: ... so these are the, yes-

I-2: [crosstalk 00:09:22]-

DC: Yes.

I-2: Yes, because through the scale, as you look at it on the system, it's telling you exactly what you need to work on.

DC: Okay. About how often did you interact with your consulting teacher? In this answer, please describe interactions.

I-2: I would say our interactions were at least once a week. It really depended upon the need at the time. In the beginning, the need was real great, so she kind of help me along the way with lesson planning, answering questions. She helped me with, I guess you could say, suggestion of space in the classroom, maybe I could put the desks here. She helped me with getting materials for a bulletin board, getting materials for a lesson I was going to teach. I was able to go to the lab where the consulting teachers are, and I was able to make some things. The make and take was really great for me.

DC: Let me ask you this, because before you get into the next question, because that's what you are about to do, let me just ask you, were many of the interactions face-to-face, through email, or telephone?

I-2: The interactions for each week was face-to-face. She actually came into the classroom.

DC: Okay, that's great.

I-2: She spent at least 45 minutes to an hour for sure. The least time she spent might've been 30 minutes. But I would say at least 45 minutes to an hour. She was great. She watch me teach a lesson with my students. Then she interjected, I guess I would say, [co-teached 00:11:29] with me, which was real helpful. I was like, "Do you have to leave? Could you stay?"

DC: Right, so actually this next question will give you a chance to talk more about that. Which activities were facilitated during your participation in

PAR? You spoke about that co-teaching. Maybe attended trainings? This is just some examples listed in front of you; attended trainings, maybe peer observations, reviewing professional goals, and professional ratings modeling. That's just a few examples. If some of those are included, please let me know.

I-2: Modeling, because in her classroom support, when she would come and support me, those interjections were modeling teaching, and I was able to draw upon them, and the trainings that I did go to. Although, she didn't do the training, I did attend training where there were other CTs that were at the facility doing the trainings. They were fantastic as well. I didn't have as much interaction with them, but the sessions that I did go to, I was able to walk away with something, which I greatly appreciate it, because I don't like my time being wasted on things that I already know. So it has been very, very helpful. Mostly modeling, co teaching with me and going to trainings that she recommended.

DC: Okay. Okay, I'm going to go through a list, and the question is, do you believe that any of these variables impact of participant's experience in PAR, either positively or negatively, [inaudible 00:13:01] change in practice? When I say change in practice, I mean change in the actual rating.

I-2: Okay.

DC: Okay, and so do you believe that gender plays a role in whether or you're going to improve in PAR?

I-2: I don't know, because my CT is female. It just so happened that our mannerisms are alike, and because of that, I think I was able to grow, because I think she understood. In the PAR office, I learned from going to the building, there was one session with one of the guys that led the training, and I would have to say I learned from him too. We were in a classroom setting. It wasn't in my classroom, but we were at the workshop setting. For me, I don't think it would make a difference, as long as the person understood, and was knowledgeable in the area. My CT is very knowledgeable. She is excellent.

DC: But let me ask you this. Being the participant, do you think your interaction, not necessarily with your CT, but do you think your growth, or your interaction would change if you, not necessarily the CT was male or

female, but if you were of another gender, for anybody? Do you believe that males flourish more in PAR versus females? Or do you think it's about even?

I-2: It depends on the openness of the person not the gender.

DC: Okay, so how open the person is-

I-2: Yes-

DC: Gotcha.

I-2: If they are accepting responsibility, that I need to grow in this area, and it's okay for somebody, a woman to tell me, if I'm a male, for you to tell me, then fine, female, fine. For me, male or female, it wouldn't matter.

DC: It wouldn't matter. Okay, that's good-

I-2: Just help me to grow. Men can be a little harder when it comes to a female telling them what to do, so I can see some resistance there. But I think they began with an understanding that, "Yeah, I know you're a professional teacher, and there's just some tweaks here and there that we might need to talk about." So I think it depends on the approach.

DC: Gotcha, thank you. I have three more, just to see if they make a difference. Do you think it make a difference as a participant, whether or not you're in a Title I school? I'm not sure if you're a Title I school, but a Title I school would be any school that has more than 75% high poverty. It's all of our schools that are considered high poverty.

I-2: I just so happen not to be in a Title I school. But I have substitute taught in a Title I school, so I would say ... What was the question again?

DC: Do you think that participation of a teacher that was in a Title I school, do you think that the fact that they were in a Title I school would impact their participation in the PAR program in any way?

I-2: I don't think so.

DC: You don't think so? Okay.

- I-2: The reason why I say that is it depends upon the teacher. If the teacher really loves teaching, then they're going to want to grow. If they see it as their job, then growth wouldn't happen whether they're a PAR there, because it's not their joy. I just so happen to enjoy teaching. My goal is to go further, and learn more about how students learn, and what is it that I can help create, produce, in order to help them to learn in the way that they need to learn.
- DC: Thank you. Then the last one, in your opinion, two more questions and we'll be done, but this part is still part of this question, do you think it makes a difference as a participant, whether you're an elementary school, versus middle, versus high school, on your ability to grow as a teacher?
- I-2: Because I'm an elementary teacher, I need to be in an elementary school.
- DC: Mm-hmm (affirmative), okay.
- I-2: I've thought adult English as a second language in community college, and there I can see where I have grown in different ways, in working with, I guess you could say, the adults. But if I'm going to work with elementary, then I need to be in an elementary school.
- DC: So for a teacher that was in PAR, that was in middle school, as a participant in the program, do you think in terms of growth and practice, does it matter that they are in high school? Not necessarily being you, if I took another participant, and they were in middle school, being in the program, do they still have the potential to grow their instructional practice through the program?
- I-2: Oh definitely. I would say that on all levels. Students in middle school, and in high school, because our classrooms are so jam-packed with children, there are so many who are slipping through the cracks. They get to high school, which is the question that I have now is, "Why is it these students are graduating, and they cannot read or write?" The PAR program can help a teacher to grow, to show them how to make these lessons, where you can catch those particular participants. In middle and high school, yes, I truly believe that a PAR teacher would be very good.
- DC: Okay. The final question, what would you recommend that would have improve your experience as a PAR participant?

I-1: More time with my mentor, which I know is not possible, because there are so many that are coming into the county, that are brand new. The county information is not easy to understand. I think they've made it a little bit easier this year, because they had sessions where you could go, and actually sit down with someone, and they explain it to you. But when we were beginning the SOOs, and the goal setting, those were not easy to understand as the expectation. It's more the expectation that's not understood, than what are they.

DC: Gotcha. That was the final question. I think you for your participation.

I-2: No problem.

Appendix F

Interview #3

Interviewer (DC): Good afternoon, this is David Curry. I thank you, Mr. Jose [Coneyez 00:00:06], for agreeing to participate in this interview. In front of you, you have the list of questions. As we go through, if there is anything extra you would like to add, please feel free to do so. Also, if there's followup questions that I may have for you to increase my understanding, those may be asked. Do we have any questions from you before we move forward?

Interviewee #3 (I-3): No, I don't.

DC: All right. All right. Just going in order, starting from the first question. Was the purpose of your participation in PAR explained to you at any time? If so, how was it explained?

I-3: Yes, it was explained by the principal and by the assistant principal as well. To begin with, when I was put on the action plan to make sure that I was doing well, or to do well in my instructional outcomes, or my teaching styles, to do better as an educator and to improve my instructional data, not just data, but also my teaching with a new curriculum that was new to me at the time. Although, I had taught Spanish previously, for the past, I guess, 17 years, doing ESL was something new to me at the time, but I was try to figure it out and then came the action plan that I was put on. So with the support of the PAR aide that was given to me to help me out during those months and even now.

DC: Okay, thanks. So with that being said, do you feel the PAR program helped you better understand instructional practices as defined by FfT, or the Framework For Teachers?

I-3: So far, it has been made very clear, and her support has been a wonderful asset towards my teaching and towards my understanding and being clear and able to put together my plans and to deliver it to my students at a more comfortable level with the outcomes and the clear instructional goals of teaching the kids.

DC: Thank you. So let's take a look at what you have in front of you, looking at a list of the eight components which of the eight components best represented your area of need and/or concerns, prior to your participation in PAR? And so, I'm going to go through them. But if you looked at the eight, which one did you believe, or it was communicated to you that you needed the most support? And so, you have 1C, setting instructional outcomes; 1E, designing coherent instruction; 1F, designing assessments; 2B, establishing a culture for learning; 2D, managing student behavior; 3B, using questioning and discussion techniques; 3C, engaging students in learning; and 3D, using assessments in the classrooms. So out of those eight, which one do you believe best represented your greatest area of need when you entered the PAR program?

I-3: When I entered the PAR program, I believe that the greatest need of help that I needed at the time was, I guess, my instruction, or the setting outcomes would come first. It was one of them. I didn't know how to plan for the students.

DC: So I just want to be clear. Select one of the eight

I-3: Lesson planning, to me, was not clear because at the time the students, what they needed at the time, it was not clear because I was still with the mentality of having to work with the content. Thinking in my head, I guess. Thinking, "I don't know the content in social studies for new comers" And I wasn't even thinking about ESL, I was thinking about the content. And therefore, my instruction got all messed up in my head. And also, my assessments. I wasn't ready to put together what I thought would be a great assessment, which hurt my discussion techniques, because I wasn't prepared at the time to have them discuss and to me they were mute. And there was not just Spanish or English, but it was also kids from the Middle East and other areas where I didn't speak the language. But finally, after a while, I realized that, okay, it is now the basic language of social studies. And with the help of the principal, assistant principal and the PAR professional, that became more clear until it was switched at the beginning of this year.

DC: So let me ask you, out of those eight ... So just a recap, and please just by yes or no, tell me if I'm correct. So planning domain one was your greatest area of need. And you mentioned 1C, setting the outcomes, and 1F, developing those assessments, probably were the two greatest areas of need out of planning.

- I-3: I believe so. Those two were the ones that, at the beginning, I had a really hard time with them because without the outcomes, I couldn't have the assessments. And therefore, that affected the rest of the other components that were available. And discussing techniques and so on, all that falls under that category, but I'm still working on all of that.
- DC: So we just talked about the ones that best represented your area of need. Which of the eight components best represented your area of strength, prior to your participation in PAR?
- I-3: Well, I believe I've never had really any issues with student behavior. That's one of the things. Establishing a culture for learning, [inaudible 00:06:05] so I've established that pretty well. But for most of all then, just student behavior. And now, I'm working on questioning and discussion techniques, or engaging the students in learning is becoming more of my strength.
- DC: But starting out, it was 2D, managing student behavior.
- I-3: Right. 2D, I would say I never had any issues with kids. [inaudible 00:06:30] they always come to me for help, or whatever it is. And I never really have to send anybody to security, or to administrator. I take care of it so I've never had that issue.
- DC: i understand. So let me ask you this next question. And some of them may feel like it's repetitive, but just being clear. Do you believe that your participation in PAR impacted your instructional practices?
- I-3: Yes. Being in the program has given me confidence and helped me understand what the district is looking at. But not just myself, but when I go to other professional development meetings I meet people other teachers that share their experience, just by hearing them and being able to see who it is, and hear the complaints, or hear the frustrations, it makes me realize that actually I'm pretty well off compared to some of what I've seen. And also, Mrs. Julie [Huey 00:07:33], my CT she is a very flexible educator who has helped me greatly in terms of just giving me the positive feedback. Even if it's negative, it never comes out as negative because it comes out positive. And she can tell me we need to work on this in a way that I don't feel intimidated, or a way I can actually, "Oh, I'd love for her to come to my class and observe me every time." And she comes weekly.

- DC: Okay. So let me ask you this because you did mention that your practices have improved. In your opinion, which of the components do you believe were impacted the most through your participation? And if you could give me the letter, and then the name of the component.
- I-3: The 1C, setting instructional goals. I think I've improved in that greatly.
- DC: And which one do you think that you probably was impacted the least?
- I-3: I'm still trying to figure out the assessment, but I'm working on using the assessments too. And I think that's gone both ways. It all depends on the outcomes. I usually use the outcomes as my assessments too.
- DC: And so, just answering the why part of this question. Why do you believe that 1C was the one that was impacted the most?
- I-3: Because I felt that working backwards with the outcomes, everything really scaffolds into that category. And having the outcomes clear is best to begin with, that's my goal with students and their objectives and their standards. So therefore, when you put the standards with the outcomes and the objectives, I think you then come out with the assessments and then the techniques that fall under all those other categories.
- DC: Okay. Question six, how was evidence used to guide your learning and/or measure your change in practice? I will repeat. How was evidence used to guide your learning and/or measure your change in practice? And then, with that being said, was the use of evidence and ratings helpful for you?
- I-3: When it comes to the evidence and the rating, it was very useful because it helped to make it clear. I can clearly take a look at myself, and give myself a rating of how well I do based upon my lesson. So the most important evidence is the results of the students, whether there's an exit ticket or a quiz, to be able to see if I've actually succeeded in the outcomes.
- DC: Okay. Okay, thank you. Number seven, about how often did you interact, or do you interact, with your consulting teacher? Please describe the interactions.
- I-3: Weekly, she sends me an email letting me know that she's gonna stop by during the day. She's very flexible, and asks me when can she stop by. And I usually let her know any time because I'm also flexible. And she

stops by, and she helps me out and asks me about my concerns. If I have any issues, how can she be helpful. Any resources that are out there, she will send them to me, or she will ask me if I need any additional resources in order help myself with the class.

DC: And so, how often does she communicate with you in person or through email?

I-3: Weekly. And by calling as well.

DC: And calling. And so, let me ask you this because you mentioned the different ways that she has worked with you. Which activities were facilitated during your participation? And so, some of the examples for when I say activities is listed on the paper in front of you. Do you attend other trainings or professional development with the CT, are there peer observations, is there modeling? What are some of the activities she has implemented to help?

I-3: We've done meetings to where she's been involved in leading those meetings. In addition to that, other educators that are involved with the same program that I'm in I guess, she's brought us together to. She's done the modeling, where she has has been like co-teacher. And then, we get together at the end and be like, "Hey. This worked. This didn't work. What can we do, or these are some ideas that I want you to implement next time I come in."

I-3: For example, this past week, I said, "Look, my curriculum has changed to where I'm gonna have a co-teacher [inaudible 00:12:34]. Maybe it'll never happen, but that's what the plan is." She said, "Make sure that you have a plan if she's not there." And I said, "I know that," but I said, "This is what I have based upon sections one through five. Since the curriculum changed and they asked me to scaffold it, to actually scaffold according to the ESL office personnel that came in for planning collaboratively." She said, "You gotta scaffold your curriculum, and you can't cover all of that because that's not what it is for the ESL students." So she has actually helped me with that aspect of saying, "Okay. We gotta work this way. I'll stop by next week, see what we've done, and then I'll give you my"-

DC: Let me say that one again.

I-3: Whether I'm a male, or whether-

DC: Yeah. Well, let me read the question again because I think the recording stopped.

I-3: Okay.

DC: Do you believe that any one of these variables impact a participant's experience in PAR, either positively or negatively influencing change in instructional practice? And so, the first one is gender. I will repeat. Do you believe being either male or female will impact how effective the program is for a participant?

I-3: Not necessarily. I don't see gender playing a major role in that. It's more if you're a perfectionist and you can't accept your flaws.

DC: Okay. What about title one status of a school? So do you believe that participation in the program can be affected by having a title one status. So is participation in title one schools different than it would be for someone who was in a non-title one school?

I-3: Now, if you're in a title one school where you need resources and there are no resources available even if you need them, that would affect. But if I'm in a title one school and I'm a participant and I'm asking for the resources to become ... My experience, for example, I'm getting the help with people from PAR, and that's an asset. But if there were no resources available and I'm supposed to get the resources, then it would be a problem.

DC: So you believe title one or not, being title one, makes a difference.

I-3: It shouldn't make a difference.

DC: Okay. And what about school level? Do you think it's different for a PAR participant in elementary versus middle or high? Or do you believe those things doesn't make a difference. When you think about participation in the program and the ability to change your practice, do you think school level matters?

I-3: No, I don't think so. I think it's to make you a better educator. The way I look at it is an asset to myself. If I can get somebody to help me to become a better educator, I'll accept that. School level doesn't matter.

DC: Okay. And the last one, I know you were in the program last year, and you're in the program this year. Do you think it makes a difference which year you're in the program?

I-3: Yes, because I think they communicate more this year. They first year I would get frustrated and almost said screw it. I'm outta here. I'm done. I don't wanna deal with this anymore I'm out. I'm not gonna do it again." But if you're the kind of person that accepts, "Okay. There is an awful year. Let me see what happens next year." For me, I can be in this program for let's say 20 years, and I love it, because it's an asset to make me a better educator.

DC: Gotcha. And the final question, what would you recommend that would have improved, or can improve, your experience as a PAR participant? If you could make any recommendations to the PAR office, what would you recommend for improvement?

I-3: Now, I haven't seen it first hand, but I've heard from other teachers saying how they haven't even met their PAR person. And then I've heard PAR teachers saying they've gone to teachers where it would help them, but they're not accepting the help.

DC: So they're in the program [inaudible 00:16:51] ... I'm sorry, you have to repeat that.

I-3: That's fine.

DC: No, but I think I have it. So for those people that feel as though they're not getting help, what would be your improvement that you would recommend?

I-3: To be patient, have the patience to accept your flaws. Because I don't think it's [inaudible 00:17:12] just to improve your teaching styles.

DC: Not to the teacher, but to the actual PAR program people.

I-3: Well, to the PAR program, I'm saying is PAR educators who have no patience, need to have patience because I see the difference between patience ... The patience is a major role. Being patient. Mrs. Julie, if I'm so nasty to her, and she is not patient with me, she's gonna be, "Screw it. I'm not gonna help." Now if you're patient, your patience will teach a teacher. I've been patient to teachers being nasty to me, and just by being patient

and just listening and saying, "Okay. You don't yet," makes a huge difference. But I've also been the kind of teacher where I'm like, "Screw you too, man. F you. I'm outta here." That doesn't really help anybody. So that's the way I look at the PAR program. It has to be the communication can continue to improve.

DC: Thank you. Is there anything you would like to add because that is the final question.

I-3: I would like to add that continue to what you're doing with ... The experience that I had with my PAR professional, Mrs. Julie Huey, is the fact that she's very patient. She knows her pedagogy about what I need to know, and takes it and breaks it down with scaffolding it, just like I would be an ESL student. Because that's what I do, ESL. And to realize that it takes time and patience, and at the same time, experience that can only be an asset to your teaching to become a better educator. She has helped me.

DC: All right. Thank you for your participation.

Appendix G

Copy of approved consent form

References

- Anderson, L. and Pellicer, L. (2001) *Teacher Peer Assistance and Review*, Corwin Press.
- Akiba, M., LeTendre, G. K., & Scribner, J. P. (2007). Teacher quality, opportunity gap, and national achievement in 46 countries. *Educational Researcher*, 36(7), 369-387.
- Archibald, S., Coggshall, J. G., Croft, A., & Goe, L. (2011). High-quality professional development for all teachers: Effectively allocating resources (Research and Policy Brief). National Comprehensive Center for Teacher Quality.
- Association for Supervision and Curriculum Development 2015. *Every Student Succeeds Act: Comparison of the No Child Left Behind Act to the Every Student Succeeds Act*. Retrieved from https://naaee.org/sites/default/files/eeopro/resource/files/essa_comparisonchart_final.pdf
- Borman, G. D., & Kimball, S. M. (2005). Teacher quality and educational equality: Do teachers with higher standards-based evaluation ratings close student achievement gaps? *The Elementary School Journal*, 106(1), 3-20.
- Bousey, H., & Glynn, S. (2012). There are significant business costs to replacing employees. Retrieved from: <https://www.americanprogress.org/wp-content/uploads/2012/11/costofturnover.pdf>
- Connor, M., & Pokora, J. (2012). *Coaching and mentoring at work: Developing effective practice*. London, UK: McGraw-Hill Education.
- Coronado, J. (2009). Quality mentoring: The missing link in retaining beginning teachers. *Southeastern Teacher Education Journal*, 2(3), 113-121.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative* (3rd Edition). Upper Saddle River, NJ: Prentice Hall.

- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. Sage Publications.
- Croft, A., Cogshall, J. G., Dolan, M., & Powers, E. (2010). *Job-embedded professional development: What it is, who is responsible, and how to get it done well (Issue Brief)*. National Comprehensive Center for Teacher Quality.
- Danielson, C., & McGreal, T. L. (2000). *Teacher evaluation to enhance professional practice*. Alexandria, Va: Association for Supervision and Curriculum Development.
- Danielson, C. (2008). *The handbook for enhancing professional practice: Using the framework for teaching in your school*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Danielson, C. (2011). *Enhancing professional practice: A framework for teaching*. Alexandria, Va: Association for Supervision and Curriculum Development.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession*. Washington, DC: National Staff Development Council.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181-199.
- Erickson, F. (2012). Qualitative research methods for science education. In *Second international handbook of science education* (pp. 1451-1469). Springer Netherlands.
- Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational Leadership*, 60(8), 25-29.
- Fenwick, A., & Weir, D. (2010). The impact of disrupted and disjointed early professional development on beginning teachers. *Teacher Development*, 14(4), 501-517.

- Fishman, B. J., Marx, R. W., Best, S., & Tal, R. T. (2003). Linking teacher and student learning to improve professional development in systemic reform. *Teaching and Teacher Education, 19*(6), 643-658.
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.
- Gay, L.R., Mills, G. & Airasian, P. (2006). *Educational Research: Competencies for Analysis and Applications*. New Jersey: Prentice Hall.
- Goldrick, L. (2016). *Support from the start: A 50- state review of policies on new educator induction and mentoring*. Policy report. Retrieved from <https://newteachercenter.org/wp-content/uploads/2016CompleteReportStatePolicies.pdf>
- Goldstein, J. (2004). Making sense of distributed leadership: The case of peer assistance and review. *Educational Evaluation and Policy Analysis, 26*(2), 173-197.
- Goldstein, J. (2007). Easy to dance to: Solving the problems of teacher evaluation with peer assistance and review. *American Journal of Education, 113*(3), 479-508.
- Goldstein, J. (2008). Taking the lead with peer assistance and review, the teaching profession can be in teacher's hands. *American Educator, 32*(3) 4-37.
- Goldstein, J., & Noguera, P. A. (2006). A thoughtful approach to teacher evaluation. *Educational Leadership, 63*(6), 31-37.
- Guskey, T. R., & Yook, S. K. (2009). What works in professional development? *Phi Delta Kappan, 90*(7), 495 – 500.

- Hanushek, E. A., Kain, J. F., O'Brien, D. M., & Rivkin, S. G. (2005). The market for teacher quality (No. w11154). Cambridge, Mass: Working Paper, National Bureau of Economic Research.
- Hanushek, E. A., & Rivkin, S. G. (2006). Teacher quality. *Handbook of the Economics of Education*, 2, 1051-1078.
- Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics*, 95(7), 798-812.
- Hawley, W., & Valli, L. (2000). Learner centered professional development. *Phi Delta Kappa Center for Evaluation, Development and Research*, 27, 7-10.
- Helfrich, C., Damschroder, L., Daggett, G., Sahay, A., Ritchie, M., Damush T., Guihan, M., Ullrich, & C. Stetler. (2010). A critical synthesis of literature on the promoting action on research implementation in health services (PARIHS) framework, *Implementation Science*, 5(82), 1-20. Retrieved from <https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-5-82>
- Helfrich, C. D., Damschroder, L. J., Hagedorn, H. J., Daggett, G. S., Sahay, A., Ritchie, M., & Stetler, C. B. (2010). A critical synthesis of literature on the promoting action on research implementation in health services (PARIHS) framework. *Implementation Science*, 5(1)1. doi: 10.1186/1748-5908-5-82
- Howard County Public Schools. (2015) The Howard County School Systems Teacher Evaluation Process Guide. Retrieved from: http://www.hcpss.org/f/aboutus/teacher_eval/teach_eval_id e.pdf
- Ingersoll, R., & Smith, T. (2003). The wrong solution to the teacher shortage. *Educational Leadership*, 60(8), 30-33.

- Ingersoll, R., & Smith, T. (2004). Do teachers induction and mentoring matter? *NASSP Bulletin*, 88(638), 28-40.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers a critical review of the research. *Review of Educational Research*, 81(2), 201-233.
- Jacob, A., & McGovern, K. (2015). The Mirage: Confronting the hard truth about our quest for teacher development. The New Teacher Project (TNTP). Retrieved from <https://tntp.org>.
- Johnson, S., & Fiarman, S. (2012, November). The potential of peer and review. *Educational Leadership*, 70(3), 20-25.
- Johnson, S., Fiarman, S., Munger, M., Papay, J., & Qazilbash, E. (2009). *A users' guide to peer assistance and review*. Retrieved from: <http://www.gse.harvard.edu/~ngt/par/>
- Johnson, S., Papay, J., Fiarman, S., Munger, M., & Qazilbash, E. (2010). *Teacher to teacher: Realizing the potential of peer assistance and review*. Washington, DC: Center for American Progress.
- Kent, A. M. (2004). Improving teacher quality through professional development. *Education*, 124(3), 427-435.
- Kitson, A. L., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., & Titchen, A. (2008). Evaluating the successful implementation of evidence into practice using the PARIHS framework: Theoretical and practical challenges. *Implement Science*, 3(1), 1. doi: 10.1186/1748-5908-3-1
- Kumrow, D., & Dahlen, B. (2002). Is peer review an effective approach for evaluating teachers? *The Clearing House*, 75(5), 238-241.

Lawton, P. (2013). *Maryland teacher attrition data*. Retrieved from MSDE website:

[http://www.boarddocs.com/mabe/fcps/Board.nsf/files/9T7LHQ4DB939/\\$file/Attachment%20K_Maryland%20Teacher%20Attrition%20Data.pdf](http://www.boarddocs.com/mabe/fcps/Board.nsf/files/9T7LHQ4DB939/$file/Attachment%20K_Maryland%20Teacher%20Attrition%20Data.pdf)

Lodico, M., Spaulding, Dean. & Voegtler, K. (2010). *Methods in educational research: from theory to practice*. California: Jossey-Bass.

Lodico, M. G., Spaulding, D. T., & Voegtler, K. H. (2010). *Methods in educational research: From theory to practice* (Vol. 28). John Wiley & Sons.

Lunenburg, C.F., & Irby, B. (2007). *Writing a Successful Thesis or Dissertation: Tips and Strategies for Students in the Social and Behavioral Sciences*, Corwin Press.

Maryland State Department of Education. (2015). Maryland state plan to ensure equitable access to excellent. Retrieved from

<https://www2.ed.gov/programs/titleiparta/equitable/mdequityplan060115.pdf>

Montgomery County Public Schools. (2004). *A guide for teachers in PAR: The MCPS Peer Assistance and Review (PAR) program*. Retrieved from

<http://www.montgomeryschoolsmd.org/departments/development/resources/projover/docs/PARteacher.pdf>

Moore, S., & Fiarman, S. (2012). The potential of peer review. *Educational Leadership*, 7(3), 20-25.

National Center for Educational Statistics. Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2005-06. (2008). Retrieved from:

<http://nces.ed.gov/pubs2008/expenditures>

- National Education Association. (2012, May). *Peer assistance and review: All teachers on the road to instructional leadership in Columbus (OH) "100% Project Schools"* (The NEA Foundation Issue Brief). Retrieved from <https://www.neafoundation.org/content/assets/2012/11/Peer%20Assistance%20and%20Review%20Issue%20Brief.pdf>
- National Governor's Association. (2009). *State policies to improve teacher professional development*. Retrieved from www.nga.org/center
- Papay, J. P., & Johnson, S. M. (2012). Is PAR a good investment? Understanding the costs and benefits of teacher peer assistance and review programs. *Educational Policy*, 26(5), 696-729.
- Patton, K., Griffin, L. L., Sheehy, D., Arnold, R., Gallo, A. M., Richardson, K., & James, A. (2005). Navigating the mentoring process in a research-based teacher development project: A situated learning perspective. *Journal of Teaching in Physical Education*, 24, 302-325
- Peske, H. G., & Haycock, K. (2006). *Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality: A Report and Recommendations by the Education Trust*. Education Trust.
- Prince George's County Public Schools, (2015). *Prince George's district guide to peer assistance and review*. Upper Marlboro, Md. Office of Employee performance and Evaluation.
- Prince George's County Public Schools. (2016, October 20). *Office of Employee Performance and Evaluation executive report*. Young, M. Upper Marlboro, Md. Office of Employee performance and Evaluation.

- Prince George's County Public Schools Board of Education. (2014). Prince George's County Public Schools Master Plan SY15. Retrieved from <file:///C:/Users/david.curry/Desktop/2015%20PGCPS%20BTE%20Comprehensive%205-Year%20Master%20Plan%20-%20Parts%20I%20and%20II-revised%20submission.pdf>
- Prince George's County Public Schools Board of Education. (2015). Prince George's County Public Schools Master Plan SY1. Retrieved from <http://www1.pgcps.org/strategicresourceplanning/index.aspx?id=177561>
- Qazilbash, E., Moore, S., Fiarman, S., Munger, M., & Papay, J. (2009). *Peer assistance and review: A cross-site study of labor-management collaboration required for program success*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, April 2009.
- Rosales, J. (2015). *Teachers evaluating teachers: Where PAR programs thrive*. Retrieved from <http://neatoday.org/2015/11/24/when-teachers-luate-teachers/>
- Rycroft-Malone, J. (2004). The PARIHS Framework: A framework for guiding the implementation of evidence-based practice. *Journal of Nursing Care Quality, 19*(4), 297-304.
- Smollin, M. (2011). *Five reasons teacher turnover is on the rise*. Retrieved from <http://www.takepart.com/article/2011/08/09/five-reasons-teacher-turnover-rise>
- Stroot, S. A., Fowlkes, J., Langholz, J., Paxton, S., Stedman, P., Steffes, L., & Valtman, A. (1999). Impact of a collaborative peer assistance and review model on entry-year teachers in a large urban school setting. *Journal of Teacher Education, 50*(1), 27-41.

- Suppovitz, J. A., & Turner, H. M. (2000). The effects of professional development on science teaching practices and classroom culture. *Journal of Research in Science Teaching*, 37(9), 963-980.
- U.S. Department of Education, National Center of Education Statistics. (2014). *Results from the 2012–13 Teacher Follow-up Survey*. Retrieved from <http://nces.ed.gov/pubs2014/2014077.pdf>
- U.S. Department of Education, National Center of Education Statistics. (2015). *Public school teacher attrition and mobility in the first five years: Results from the first through fifth waves of the 2007–08 Beginning Teacher Longitudinal Study*. Retrieved from <http://nces.ed.gov/pubs2015/2015337.pdf>
- Valli, L., & Buese, D. (2007). The changing roles of teachers in an era of high stakes accountability. *American Educational Research Journal*, 44(3), 519-558.
- Yoon, K. S., Duncan, T., Lee, S. W., Scarloss, B., & Shapley, K. L. (2007). *Reviewing the evidence on how teacher professional development affects student achievement. Issues & answers*. REL 2007-No. 033. Washington DC: U.S. Department of Education, Regional Educational Laboratory Southwest (NJ1).
- Yusko, B., & Feiman-Nemser, S. (2008). Embracing contraries: Combining assistance and assessment in new teacher induction. *Teachers college record*, 110(5), 923-953.
- Yuen, L. H. (2012). The impact of continuing professional development on novice teachers. *Teacher Development*, 16(3) p387-398.