Summer 2019

How Induction Practices Impact Retention: A Case Study

Heidi Dunlap

Hamline University

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_all

Part of the Education Commons

Recommended Citation


https://digitalcommons.hamline.edu/hse_all/4471

This Dissertation is brought to you for free and open access by the School of Education at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education Student Capstone Theses and Dissertations by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu, wstraub01@hamline.edu, modea02@hamline.edu.
HOW INDUCTION IMPACTS RETENTION: A CASE STUDY

by

Heidi M. Dunlap

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctorate in Education.

Hamline University

Saint Paul, Minnesota

August 2019

Dissertation Chair: Kim Hartung
Reader: Bryan Bass
Reader: Leslie Hitchens
ABSTRACT

Dunlap, H. How Induction Impacts Retention: A Case Study (2019)

The topic of this dissertation is teacher induction or the process by which teachers are supported as they enter the profession or a new educational setting. Specifically, case study methodology was used to describe how a particular type of induction program, Peer Assistance and Review (PAR), impacted retention. Examination of program records, secondary data analysis, and interviews were used to describe the process of induction in two ways. First, how PAR impacted teacher retention. Second, how teachers perceived the support components utilized within the program. The results were analyzed using Herzberg’s (1968b) Two-Factor Theory of Motivation; the analysis included teachers’ perceptions of support and how their perceptions impacted their decision-making process. The findings reveal that induction programs may provide an opportunity for schools and districts to define the criteria for retention. Additionally, retention was found to be higher in the urban research district (86.5%) as compared to state (84.9%) and national (83.2%) retention rates. However, teacher perceptions of induction supports were inconsistent. These findings call for increased study related to teacher perception of induction support, perhaps including methods to differentiate supports to more closely align with individual needs and learning preferences.

Keywords: Case study Induction, induction supports, Peer Assistance and Review, teacher perception, teacher retention
DEDICATION

To Jason, your selflessness, in so many ways and on so many occasions, allowed me to prioritize this work. Without your unfailing support this study could not possibly have been accomplished.

To Samuel, Noah, and Elizabeth, for your patience and encouragement. This study is also a reflection of your generous willingness to help me and each other as I was writing.

To Mom and Dad, for keeping the boat afloat with your encouragement, support, rides to-and-from, and the many family meals that made everything feel “normal” as I was working.

To my friends and colleagues, for sharing my passion for this work and for all of the conversations through the years that have shaped my thinking and, ultimately, the direction of this study.

To my cohort and faculty, for honest and kind feedback and perspective on my work. The work of revision would not have been possible without your advice.

To my dissertation chair and committee, for your expertise and guidance through the process. Your questions focused my thinking and writing immeasurably.

To the interviewees, for sharing your time and perspectives. Your experiences continue to shape how I think about this work.
# TABLE OF CONTENTS

**CHAPTER ONE: Introduction** ................................................................................................. 9
  Background ........................................................................................................................... 9
  Problem Statement ............................................................................................................... 13
  Statement of Purpose ......................................................................................................... 14
  Research Questions ........................................................................................................... 14
  Personal Connection .......................................................................................................... 15
  Context ............................................................................................................................... 17
  Key Terms and Definitions ................................................................................................. 19
  Overview of Methodology ................................................................................................. 20
  Summary ............................................................................................................................. 22

**CHAPTER TWO: Review of the Literature** ........................................................................ 23
  Introduction ......................................................................................................................... 23
  Research Questions ........................................................................................................... 23
  Theoretical Framework ....................................................................................................... 24
  Overview of Teacher Attrition ............................................................................................ 26
    Impact of Attrition ........................................................................................................... 27
    Causes of Attrition ........................................................................................................... 29
  Induction Overview and Outcomes ..................................................................................... 33
    Induction and Retention .................................................................................................... 34
    Induction and Instruction .................................................................................................. 36
    Induction and Student Achievement ............................................................................... 38
  Induction Components ....................................................................................................... 40
    Common Components ....................................................................................................... 41
    Mentoring ......................................................................................................................... 42
  Induction Models ................................................................................................................ 47
    Peer Assistance and Review (PAR) .................................................................................... 47
    Other Induction Models .................................................................................................... 52
  Summary ............................................................................................................................. 55

**CHAPTER THREE: Methodology** .................................................................................... 57
  Introduction .......................................................................................................................... 57
  Study Rationale ................................................................................................................... 57
  Research Approach ............................................................................................................ 59
  Study Design ........................................................................................................................ 60
    Researcher’s Role .............................................................................................................. 61
    Setting ............................................................................................................................... 61
    Case .................................................................................................................................. 62
    Participants ....................................................................................................................... 64
  Research Sample ................................................................................................................ 66
  Data Sources ....................................................................................................................... 67
    Recommendations to Oversight Panel ............................................................................. 67
    Evaluation Data ................................................................................................................ 68
    Semi-structured Interviews ............................................................................................. 69
Appendixes

Appendix A - Elements of Minnesota Induction Programs ......................... 166
Appendix B - Herzberg’s (1968b) Two-Factory Motivation Theory .............. 167
Appendix C - Interview Guide .................................................................... 168
Appendix D - Recruitment Email ................................................................. 163
Appendix E - Email Response to Interested Participants ............................ 171
Appendix F - Selection Notification Email .................................................. 172
Appendix G - IRB Consent Form ................................................................. 173
Appendix H - IRB Approval ........................................................................ 177
Appendix I - Reflecting Conversation Map ................................................. 179
Appendix J - Planning Conversation Map .................................................... 180
LIST OF TABLES

Table 2.1 - NTC’s (2015) Induction practices with strongest research evidence ........................................... 41
Table 2.2 - AFTs (2016) Details of the Five PAR Programs Visited .............................................. 49
Table 2.3 - Components of Induction Programs ................................................................. 52
Table 3.1 - AFTs (2016) Features Present in Case Being Studied ............................................. 64
Table 3.2 - Teachers by Probationary Year ................................................................. 65
Table 3.3 - Teachers by Previous Experience ........................................................................ 65
Table 3.4 - Support Factors ......................................................................................... 77
Table 4.1 - Teachers by Probationary Year ........................................................................ 84
Table 4.2 - Teachers by Previous Experience ........................................................................ 85
Table 4.3 - AFTs (2016) Features Present in Case Being Studied ........................................ 85
Table 4.4 - Induction Components Provided in Case Being Studied ..................................... 87
Table 4.5 - Overall Teacher Evaluation Data ........................................................................ 90
Table 4.6 - Recommendations for Renewal and Non-renewal ............................................. 91
Table 4.7 - Mean Elements by Performance Indicator ....................................................... 93
Table 4.8 - “Below Standard” Elements – Teachers Recommended for Non-renewal ......................... 95
Table 4.9 - Support Factors .......................................................................................... 105
Table 4.10 - Instructional Strategies from PAR .................................................................... 130
Table 5.1 - AFTs (2016) Features Present in Case Being Studied ........................................ 135
Table 5.2 - Recommendations for Renewal and Non-renewal .......................................... 137
Table 5.3 – Evaluation Tool – Sample of Performance Indicators, Domains, and Elements ................................. 139
Table 5.4 – Overall Teacher Evaluation Data........................................................................ 140
Table 5.5 – Evaluation Elements by Domain ...................................................................... 142
LIST OF FIGURES

Figure 1.1 - MDE’s (2017) Table of Minnesota Teacher Attrition ........................................ 9
Figure 4.1 – Mean Elements by Performance Indicator .......................................................... 94
Figure 4.2 – “Below Standard” Elements –
    Teachers Recommended for Non-renewal ........................................................................... 97
Figure 4.3 – Coaching Results ................................................................................................. 106
Figure 4.4 – Lesson Plan Feedback Results ............................................................................. 111
Figure 4.5 – Data Collection Results ....................................................................................... 114
Figure 4.6 – Self-Assessment Results ....................................................................................... 117
Figure 4.7 – Evaluation and Feedback Results ........................................................................ 120
Figure 4.8 – Goal-setting Results ........................................................................................... 124
Figure 4.9 – Impact Results .................................................................................................... 127
Figure 5.1 – Mean Elements by Performance Indicator .......................................................... 141
Figure 5.2 – Glazerman et al. (2010) –
    Conceptual Framework of Induction .................................................................................. 152
Figure 5.3 – Shockley et al. (2013) –
    The Weighted Balance Satisfier Model ............................................................................. 152
Figure 5.4 – Induction Model .................................................................................................. 153
CHAPTER ONE

Introduction

Background

In the most recent twenty years, teacher attrition, or the loss of teaching staff, has exceeded the number of teachers entering the field (Carroll, 2007). At the state level, the urgency of teacher shortages might be highlighted by considering that, of the 2,459 teachers who began teaching in the 2009-2010 school year, less than 64% returned to teaching for the 2015-2016 school year (Minnesota Department of Education [MDE], 2017, p. 24). (See Figure 1.1.)

Figure 1.1
MDE’s (2017) Table of Minnesota Teacher Attrition

<table>
<thead>
<tr>
<th>Cohort Year</th>
<th>Number of First-Year Teachers</th>
<th>Return to Teaching 2009–10</th>
<th>Return to Teaching 2010–11</th>
<th>Return to Teaching 2011–12</th>
<th>Return to Teaching 2012–13</th>
<th>Return to Teaching 2013–14</th>
<th>Return to Teaching 2014–15</th>
<th>Return to Teaching 2015–16</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009–10</td>
<td>2,459</td>
<td>2,031</td>
<td>1,885</td>
<td>1,764</td>
<td>1,681</td>
<td>1,635</td>
<td>1,572</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-17.41%</td>
<td>-23.34%</td>
<td>-28.26%</td>
<td>-31.64%</td>
<td>-33.51%</td>
<td>-36.07%</td>
<td></td>
</tr>
<tr>
<td>2010–11</td>
<td>2,209</td>
<td>1,915</td>
<td>1,706</td>
<td>1,620</td>
<td>1,512</td>
<td>1,542</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-17.84%</td>
<td>-22.77%</td>
<td>-26.66%</td>
<td>-27.02%</td>
<td>-30.19%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011–12</td>
<td>2,406</td>
<td>2,052</td>
<td>1,873</td>
<td>1,332</td>
<td>1,748</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-14.71%</td>
<td>-22.15%</td>
<td>-23.86%</td>
<td>-27.31%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012–13</td>
<td>2,907</td>
<td>2,452</td>
<td>2,343</td>
<td>2,176</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-15.65%</td>
<td>-19.40%</td>
<td>-25.15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013–14</td>
<td>2,617</td>
<td>2,571</td>
<td>2,366</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-10.64%</td>
<td>-17.76%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014–15</td>
<td>3,199</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015–16</td>
<td>3,087</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Although teachers leave their positions for a variety of unavoidable reasons, according to Ingersoll and Strong (2011), “the data show that beginning teachers, in particular, report that one of the main factors behind their decisions to depart is a lack of adequate support from the school administration” (p. 202). In response, as policymakers and education leaders continue to search for strategies to retain teachers, induction, or the process of supporting teachers new to the profession, is one widely considered strategy.

While not necessarily a new concept, the topic of teacher induction has received increasing attention from researchers as a result of persistent teacher shortages highlighted above (Educator Policy Innovation Center [EPIC], 2016; MDE, 2017; New Teacher Center [NTC], 2015; Teacher Support Partnership [TSP], 2009). Specifically, researchers have sought to determine whether there is indeed a connection between induction program support and retention, in addition to other outcomes such as improved or increased instruction and improved student achievement.

On each of these outcomes, research has produced conflicting results. On one hand, researchers have found that “comprehensive” induction programs with several support components, such as mentoring, professional development, and administrator support, have a positive impact on retention (Ingersoll & Strong, 2011; Smith & Ingersoll, 2004). As opposed to single support components, researchers have found that these strategies, taken together, reduce isolation, increase agency, and improve the overall culture of teaching and learning by increasing collaboration among staff (EPIC, 2016). On the other hand, neither the only major controlled study of induction (Glazerman et al., 2008) nor its follow-up (Glazerman et al., 2010) found significant evidence connecting induction supports with retention, improved instruction, or student
achievement. These results notwithstanding, researchers (Ingersoll & Strong, 2011; Shockley, Watlington, & Felsher, 2013) argued that gaps in the literature remain due to theoretical and methodological limitations of the Glazerman et al. (2008) and Glazerman et al. (2010) studies. Specifically, in spite of the Glazerman et al. (2008) and Glazerman, et al. (2010) results, evidence remains that induction has an impact on retention. What remains to be studied is how and why induction works.

To that end, in addition to reviewing various outcomes of induction, other considerations from the literature that will be reviewed in the current study include the causes of teacher attrition, components of induction support, and examples of induction programs. First, while the causes of teacher attrition are varied and complex, some patterns have emerged in the literature. In one study, factors such as the stability of the position, grade level, area of licensure, and poverty level were linked to higher attrition (Smith & Ingersoll, 2004). Other studies found that teachers leave as a result of other factors, such as lack of administrative support (Hagaman & Casey, 2018; Rinke & Mawhinney, 2017) or disagreement with curriculum (Glazer, 2018). Second, while most new teachers now receive some measure induction support (Ingersoll & Strong, 2011), gaps remain as to which, if any, induction supports are most effective (Mitchell, Howard, Meetze-Hall, Scott Hendrick, & Sandlin, 2017). Due to its prevalence as an induction support component, evidence related to mentoring support is more common in the literature. For example, Wang and Odell’s (2002) meta-analysis of the literature focused on the extent to which mentors supported the implementation of standards-based curriculum. In this review, the authors found that mentoring approaches that sought to transform knowledge, as opposed to transmit knowledge, were more likely to increase
the implementation of standards-based curriculum (Wang & Odell, 2002). To this end, the authors argued that “to support novices’ learning to teach, it is important for program developers and policymakers to examine the assumptions underlying existing mentoring programs” (Wang & Odell, 2002, p. 500). Third, literature related to the efficacy of different and specific induction programs is extensive; however, researchers have noted that gaps on this topic remain as well due to methodological limitations (Smith & Ingersoll, 2004). Nevertheless, findings related to induction programs have provided useful background related to the current study. Specifically, in a context-specific study of the UChicago UTEP induction program, Hammerness and Matsko (2012) argued that mentors need more than experience teaching in the context. According to the authors, in order to work well with new teachers, mentors also need to “demonstrate both cultural sensitivity and cultural competence, and commitments to social justice and equity” (p. 574). Furthermore, researchers have found that teachers’ perceptions of these mentoring approaches have substantial impact on the extent to which new teachers implement strategies suggested by mentors (Hammerness & Matsko, 2012; Wang & Odell, 2002).

While empirical evidence is lacking, research suggests connections between teachers’ perceptions of support, professional efficacy, and retention (Glazer, 2018; Hagaman & Casey, 2018; Rinke & Mawhinney, 2017). Shockley et al. (2013) argued that the reason for the lack of evidence is that researchers lack theoretical grounding for their research. Although Shockley et al. (2013) offered a compelling suggestion, which will be reviewed in more detail in the following chapters, examples of conceptual and theoretical models for induction do exist in the literature. Some examples include induction as a stage of teacher development (Feiman-Nemser, 2012); a mutual-benefits model, based on
the work of Zey (1984) (Ingersoll & Strong, 2011); and, finally, induction as a professional development strategy (Maulana, Helms-Lorenz, & van de Grift, 2015; Moir, 2005). With this in mind, the most compelling reason for considering Herzberg’s (1968b) motivation theory (see Appendix B) is not that theoretical models for induction are absent. Rather, it is compelling in spite of the use of various models in previous studies and the resulting gaps in empirical evidence.

The extent to which similar transformative, social justice-based induction approaches impact teachers’ perceptions will be examined insofar as they are related to coaching, one of six induction support components available in the program being studied. The other induction support components being examined include lesson plan feedback, data collection and observation, self-assessment, evaluation and feedback, and goal setting. To that end, the purpose of this study is to consider how a particular induction program impacts teacher retention. Secondary questions seek to determine how teachers experience induction supports and whether those experiences are supportive and impact teachers’ instructional choices and employment decisions.

**Problem Statement**

New teacher attrition remains unacceptably high (Carroll, 2007; EPIC, 2016; MDE, 2017; NTC, 2015; TSP, 2009) although most new teachers now participate in some form of induction program (Ingersoll & Strong, 2011; Shockley et al., 2013). While studies continue to confirm the positive impact of induction on teacher retention, the underlying reasons—how does induction impact retention and why does induction impact retention—have not yet been uncovered in the literature.
**Statement of Purpose**

This study explores how a specific induction program impacts teacher retention.

Maxwell (2013) argued that goals “help to guide your other design decisions to ensure that your study is worth doing, that you, or those you write for get something of value out of it” (p. 22). To that end, no small degree of motivation is derived from teacher attrition data and gaps in the literature. Specifically, while the connection between induction and retention has been established in the research (Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004), strong conflicting evidence has emerged (Glazerman et al., 2008; Glazerman et al., 2010), and the extent to which any of the various components impact retention is not entirely conclusive (NTC, 2015; Shockley et al., 2013).

Furthermore, it is not known why or how induction impacts retention (Ingersoll & Strong, 2011). For this reason, this qualitative case study sought to determine how the induction program studied impacted retention, how teachers perceived the support provided by the varying components of the program and, further, the extent to which these perceptions inform their decisions to continue their work in the district and teaching in general.

**Research Questions**

The review of the literature is focused by the question: How does induction impact retention? From this question, secondary questions seek to determine underlying connections, such as:

1. What components of induction do teachers perceive are supportive?
2. How do teachers describe the influence of induction practices on their continued employment?
**Personal Connection**

While mostly informal, many best-practice induction strategies have been present for me over the course of my career, particularly during the early years. When I began teaching, I was assigned a very kind and experienced mentor. She visited my classroom and gave me positive feedback: the classroom was orderly, the posters were helpful, my students seemed happy and engaged, and I offered them very challenging texts and writing assignments. The evaluations I received from my administrators were similarly positive, with a few suggestions for improvement. I was also fortunate to work in a large high school with an engaged and helpful English department. My colleagues offered binders of daily lesson plans and were readily available to answer questions as they came up. Induction, to a large extent, was handled in-house and I did well. That spring, however, I was laid off and landed in a much smaller junior high with very little departmental support. Since this was my second year teaching with the district, there was no district-level support either. I felt very much on my own that year. And I struggled, considering often whether I had in fact made a huge mistake in choosing to become a teacher. Attrition data (MDE, 2017) suggests that my early frustrations and disillusionment were not unique.

I was perhaps luckier than most new teachers in that I was not as alone as I had initially thought. There were colleagues who suggested that I was a good fit for a program that afforded me a summer of career-changing professional development. I also had administrators who saw my potential—and shared their beliefs with me. I was given leadership opportunities early in my career which gave me confidence and a vision of myself as a useful member of the school community. Unlike the early months at the
school when I felt alone and incapable, I closed the third year of teaching with a feeling of success and accomplishment.

It is not inconsequential that I began teaching at this school the year that No Child Left Behind (NCLB; 2002) was signed into law. Like most districts, mine responded quickly to legislation in a variety of ways, including extensive standardized test preparation and many, many professional development sessions on data-driven decision-making. I also remember sitting with my colleagues fretting over the potential impact of the letters that had to be sent home to families when the school had failed to make Adequate Yearly Progress (AYP; NCLB, 2002). This narrative of failure, which ran counter to my personal narrative of accomplishment, had a powerful impact on the school climate and culture.

The school itself was a small junior high nestled high on a bluff at the edge of an urban district. It had a long history and the worn oak floors and cupboards of the classrooms evinced both romantic notions of early comprehensive high schools and the bleak inequities of many urban schools. A narrative of loss permeated the culture of the school: enrollment was significantly lower than in previous decades and the childcare and health facilities that had once made the school a neighborhood hub were gone, but still necessary and sorely missed. Aside from the physical resources, we did not yet know how to address the racial achievement gaps that NCLB (2002) revealed. As a result, the years of failure continued, with corresponding penalties, and district leaders chose to close the school and release most of the teachers.

Following the school closure, I found a position at another school in the district and enjoyed six additional years in the classroom. Most recently I have been working as
an instructional coach supporting teachers new to the district. I entered the work as a confident teacher, with not nearly enough understanding of how to support another adult’s professional growth. Much like my first years as a teacher, my first years in this role were filled with moments of great joy and crushing disappointment.

My interest in this topic, teacher induction, is founded in my personal journey and my experiences as a new teacher and instructional coach, as well as the corresponding examination of my work and the impact of the program as a whole—the successes and failures. In this way, my positionality as an instructional coach in this program impacts my role as a researcher. Clearly not an outsider, it was important to acknowledge my close connections to the topic in general and the program in particular. Furthermore, several measures were taken throughout the study to acknowledge my connections to the program and enhance the validity of the findings. While these will be discussed in greater detail in Chapter Three, some of these measures include methods to protect the identities of the participants and other strategies to support reflexivity (McMillan & Schumacher, 2010).

**Context**

Induction in the district being studied spans teachers’ three-year probationary period, in accordance with state law (Minnesota Teacher Tenure Act, 2017), and includes multifaceted supports such as mentoring, professional development, and evaluation. The induction program, Peer Assistance and Review (PAR) in particular, includes many high impact, research-informed practices (NTC, 2015). A list of these induction practices and statewide frequency can be found in Appendix A. For example, regardless of previous experience, teachers receive approximately forty (40) hours of PAR support during their
first, second or third year of employment, differentiated and personalized professional
development, including video recording and site visits, as well as three (3) administrative
evaluations using the Standard of Effective Teaching (SET) tool per year. Taken together,
these components attempt to move teachers toward measurably effective instruction.

PAR in this context was initially researched and proposed by members of the
district’s teachers union. The program was negotiated into the teachers’ contract and
modeled after the Toledo (Ohio) Plan (Lawrence, 2003). As such, new teachers were
paired with experienced teachers for the purpose of evaluation and consultation.
Experienced teachers, called consulting teachers (CTs), met with teachers four times a
month for classroom observations and feedback meetings. Much of the feedback
provided at the meetings was focused by the SET rubric. Also like the Toledo Plan, CTs
presented reports of teachers’ progress to an oversight board, called the PAR Board,
twice a year. Although this oversight component remains, the program has changed in a
number of ways in the ensuing years.

Two of the most notable changes are the inclusion of the Cognitive Coaching
approach (Costa, Garmston, & Zimmerman, 2014), in 2011, and the Courageous
Conversations Protocol (Singleton, 2015), in 2013. Each of these tools supported a shift
from what Wang and Odell (2002) described as a “transmissive” model, where the
mentor seeks to pass information to the new teacher, to a more constructivist, or
“transformational,” model, where the mentor seeks to support teachers’ reflection and
professional growth.
Key Terms and Definitions

The following terms will provide context for the study. They will be presented in alphabetical order. Attrition, induction, mentor, and retention are defined below.

**Attrition.** Attrition is defined as “a reduction in numbers usually as a result of resignation, retirement, or death” (“Attrition,” 2018). In practical terms related to this study, attrition refers to the number of teachers who resign from their teaching positions for reasons other than health or relocation. Attrition for the purpose of this study also excludes reductions as a result of retirement or non-renewal of contract.

**Induction.** Although some researchers (Kearney, 2017) have argued that induction, rather than a “finite intervention” is a “phase in a teacher’s career” induction (p. 787), as mentioned above, is defined as the process by which teachers are supported as they enter the profession. The types and duration of the supports vary (Ingersoll & Strong, 2011) from orientation workshops to multi-year formal mentoring intended to support instructional growth (Gujarati, 2012). Shockley et al. (2013) argued that “without a definition of induction, useful comparative research on program efficacy is impossible to achieve” (p. 370). To that end, Shockley et al. (2013) defined induction as “planned, needs-based, comprehensive, professional development programs for the retention and improvement of novice teachers that address teacher effectiveness, growth, and job satisfaction” (p. 371). Induction, for the purpose of this study, will be defined in this manner.

**Mentor.** A mentor, according to Corcoran Nielsen, Lundmark Barry, and Brickey Addison (2012), may be a “buddy” who welcomes a new teacher or novice to the school. In this way, mentoring can be defined as “the personal guidance provided, usually by
seasoned veterans, to beginning teachers in schools” (Ingersoll & Strong, 2011). A mentor may also be synonymous with coach and provide more intensive instructional support (Corcoran Nielsen et al., 2012) and will be used in this manner for the purpose of this study.

Retention. Several studies (EPIC, 2016; Ingersoll & Strong, 2011; NTC, 2015) have framed the problem of teacher attrition—the number of teachers who leave the teaching profession. The inverse of attrition—the number of teachers who remain in the teaching profession—is referred to as retention. For the purposes of this study, retention refers to not only those teachers who remain in the teaching profession, but also those who are retained in the district being studied after completing the induction program.

Overview of Methodology

This study took a qualitative constructivist approach to the topic of induction, guided by the purpose of the study. As the authors of previous studies have acknowledged, the limitations of their studies and previous research have resulted in gaps in the literature, especially findings that explain the connections between retention and induction. As Shockley et al. (2013) argued, a more complex understanding of induction is necessary going forward.

The goals of teacher induction programs include the successful transition from student teacher/novice educator to professional educator, and orientation to school culture, support of teachers as they acclimate to their new profession and all of its challenges, and the development and strengthening of their teaching skills. The results of this study point to the fact that teacher satisfaction and motivational
factors are generally not included or are not part of the intent of most programs (p. 373).

A constructivist research paradigm, therefore, founded in the belief that individuals develop “varied and multiple . . . subjective meanings . . . of the world in which they live and work” (Creswell, 2014, p. 8) is better matched to the examination of this complexity than the “objective reality” of the postpositivist paradigm (Creswell, 2014, p. 7). In addition, the importance of “understanding the social phenomenon from the participants’ perspective” (McMillan & Schumacher, 2010, p. 12), among other characteristics of qualitative methods (Creswell, 2014) which will be discussed in greater detail in Chapter Three, have guided these methodological choices.

Moreover, descriptive case study methodology was used in order to understand the particular and unique perceptions of teachers who recently participated in the induction program being studied. This methodology also revealed variables the researcher had not yet considered (Creswell, 2014, p. 20), such as patterns in retention and evaluation data and factors impacting participants’ perceptions and decision-making. To these ends, the case study approach provided both the contextual (Stake, 1995) and particular (Yin, 2018) data relative to this particular case. A variety of data, including program retention data, teacher evaluation data, program documents, and semi-structured interviews. All of these data, “anchored in real-life situations” resulted in a more “holistic account” of the case being studied (Merriam, 1998, p. 41). Further details specific to the methodological choices will be provided in Chapter Three.
Summary

While it is true that “sink or swim” methods of induction are rare in the United States, there are still major differences in the amount and type of induction new teachers receive as they begin their teaching careers. In addition to differences in the amount and type, induction programs are also guided by very different goals and objectives—some seek to “weed out” teachers that do not meet standards, while others operate from a position of teacher development. The goal of this research is to determine how the induction program being studied impacted retention, how teachers perceived the support components, and whether the support components impacted their decision-making.

This chapter included background information related to induction, including a preview of the themes present in the literature review. A statement of the problem, which focused and brought purpose to the study and research questions, followed the background information. Next, the researcher’s personal connection to and experiences with induction were included, along with a description of the context of the study. The chapter concludes with key terms and definitions and a brief summary of study methodology. Chapter Two: Review of the Literature follows and provides a synthesis of recent literature related to the major themes of the study which include, attrition, induction outcomes, induction support components, and sample induction programs.
CHAPTER TWO
Review of the Literature

Introduction

The purpose of this literature review is to examine what is known about teacher induction in service of the purpose of the study, namely to explore the connection between teacher induction programs and retention. In addition to retention, researchers often consider the impact of attrition, the number of teachers leaving the profession. In the literature, these quantities are represented as the impetus (attrition) and intended outcome (retention) of induction programs.

The chapter begins with a discussion of the conceptual frameworks that have influenced induction in recent years, including recommendations from research (Shockley, Watlington, & Felsher, 2013) that guided the design of this study. Next, attrition is described, with a brief review of the impact of teacher attrition. Then, literature related to induction are reviewed. After a brief history of induction programs, research related to the outcomes of induction are presented. The literature related to induction closes with a review of research focused on the induction components, the most common of which is mentoring. The chapter closes with a review of induction programs, with close attention to Peer Assistance and Review (PAR), of which the case being studied is an example.

Research Questions

The review of the literature is focused by the question: How does induction impact retention? From this question, secondary questions seek to determine underlying connections, such as:
1. What components of induction do teachers perceive are supportive?

2. How do teachers describe the influence of induction practices on their continued employment?

Themes from the literature that emerged while seeking to answer these questions include teacher attrition, outcomes of induction, components of induction, and models of induction.

**Theoretical Framework**

The theoretical framework for this study has been guided by research on teacher attrition, outcomes of induction, induction components, and models of induction. Previous research has conceptualized induction in a variety of ways, most of which are based in a constructivist approach to learning. First, Feiman-Nemser (2012) described induction as “a bridge designed to ease the new teacher’s entry into teaching” (p. 12). Second, Ingersoll and Strand (2011) argued that induction programs are based on a mutual-benefits model (Zey, 1991), wherein programs benefit both the teacher and the school and result in improved student learning (p. 203). Finally, Vonk’s (1995) 3-D model of professional development, which includes personal, knowledge, and contextual elements. The researcher believes that the key to understanding why induction works begins with understanding what has already been considered.

Feiman-Nemser (2012) traced the conceptualization of induction from early bridge models, to reform-based professional development models, to more modern collaborative, transformative models. The early bridge models, researchers (Ingersoll & Strong, 2011; Smith & Ingersoll, 2004) argued, were based on Zey’s (1991) mutual-benefit model that was drawn from business-sector research. Similar to schools and
districts, corporations added mentoring to a wide menu of benefits in order to retain talent (Zey, 1991). In this way, according to Zey (1991), both the corporation and the new employee benefited: the corporation held onto a scarce resource and the new employee was carefully inducted into the practices and culture of the corporation. For this reason, early reviews of the literature (Smith & Ingersoll, 2004) sought first to determine how many teachers were receiving induction, as well as the extent to which participation in induction programs impacted retention. Later reviews confirmed these findings (Ingersoll & Strong, 2011; Shockley et al., 2013) and then extended the examination of induction to determine the impact of induction on other factors such as teacher practice and student achievement.

In order to examine the connections between induction and teacher practice researchers described induction as a professional development process. For example, Ensign and Woods (2017) employed Vonk’s (1995) three-dimensional model of professional development. This model, Vonk (1995) argued added a personal element that was lacking in previous models of teacher development, which focused only on technical (instructional and management skills) and ecological (school environment and professional responsibilities) development. Beginning teachers, Vonk (1995) explained, must attend to the transition from learner to teacher early in their careers. To that end, researchers (Ensign & Woods, 2017) who employ this model, as well as similar professional development or stage models, seek to understand and describe how teachers develop and how induction supports this development. The current study seeks to determine how a specific induction program impacts teacher retention, however, and therefore employs a theoretical framework that attempts to reveal the ways in which
teacher needs, programmatic approaches, and induction components intersect and impact teachers’ decision-making.

Shockley et al. (2013) argued that Herzberg’s (1968b) two-factor theory of motivation is a way to consider how induction programs work, and perhaps more pertinent to the current study, which components teachers perceive are most impactful relative to their unique and individual needs. In this theory of motivation, there are two continuums: one related to job satisfaction, or motivators, and the other related to job dissatisfaction, or hygiene (Herzberg, 1968b). Two continuum are necessary because, as Herzberg (1968b) argued, “The opposite of job satisfaction is not job dissatisfaction but, rather, no job satisfaction; and, similarly, the opposite of job dissatisfaction is not job satisfaction, but no dissatisfaction (p. 56, emphasis in original). See Appendix B for a graphic of Herzberg’s (1968b) Two-Factor Motivation Theory. A similar continuum related to teacher perception of induction support will be employed in the service of the secondary research questions.

**Overview of Teacher Attrition**

Schools and school districts take a variety of approaches to induction. Ingersoll and Strong (2011) note that “some programs are primarily developmental and designed to foster growth on the part of newcomers; in contrast, others are also designed to assess, and perhaps weed out, those deemed ill-suited to the job” (p. 203). Carroll (2007) suggested that, while not all teacher turnover is bad, it should be managed and “a school’s turnover target should be the turnover rate of the schools with the highest performance in its district. Similarly, a district’s turnover rate should be the turnover rate of the highest-performing districts in its region” (Carroll, 2007, p. 3). In this way,
districts and schools can control what Gujarati (2012) described as “the organizational and human toll” of turnover, which “is devastating to struggling districts, schools, parents, and students” (p. 220). To that end, districts and schools invest in teacher induction programs in large part to address the problem of high attrition rates. This section defines the problem of teacher attrition by presenting national and state-level attrition statistics, as well as what is known about the reasons teachers leave the profession.

**Impact of attrition.** Teacher attrition rates have remained stubbornly high over the past two decades. In fact, according to Carroll (2007), “teacher attrition has grown by 50 percent over the past fifteen years” with turnover rates at 16.8% nationally and over 20 percent for urban schools (p. 1). Furthermore, according to Smith and Ingersoll (2004), “Nearly 3 in 10 new teachers move to a different school or leave teaching altogether at the end of their first year in the occupation” (p. 706). Perhaps more troubling is that high-poverty, low-performing schools bear a disproportionate burden because they “employ a disproportionate number of beginning educators” (New Teacher Center [NTC], 2016, p. 2). These schools also spend an “inordinate amount of their capital . . . hiring and replacing beginning teachers who leave before they have mastered the ability to create a successful learning culture for their students” (Carroll, 2007, p. 2).

Some vacancies are harder to fill than others, however. For example, in the most recent report of Teacher Supply and Demand, dozens of districts and charter schools reported vacant special education positions, including fifty-four districts and charter schools that were unable to fill vacancies for emotional behavior disorders, the content area with the highest vacancies (Minnesota Department of Education [MDE], 2017).
Furthermore, while “there was access to effective and diverse teachers for white students,” this was not true for “other identified ethnicities” including Black, Asian, Hispanic, and American Indian students (MDE, 2017). So, while the problems of teacher shortage and attrition are generally high, students receiving special education services and students of color bear a disproportionate burden. Researchers have attempted to identify and better understand the factors that make attrition more likely in order to reduce these shortages and improve outcomes for students.

Individual teacher characteristics have been an important area of study in the search for patterns in attrition. Using logical regression models of the 1999-2000 Schools and Staffing Survey (SASS), Smith and Ingersoll (2004) tested a variety of teacher factors including employment status, area of licensure, age, gender, race, and earnings. Of these, only employment status yielded statistically significant results: “The relative risk of regular full-time teachers leaving teaching at the end of their first year was about half that of part-time, itinerant or substitute teachers” (Smith & Ingersoll, 2004, p. 695). The authors surmised that these results made sense “given that new teachers with part-time or irregular status are likely to be looking for more stable positions either inside or outside their current schools” (Smith & Ingersoll, 2004, p. 695). To this end, researchers have also examined the impact of school characteristics on teacher attrition.

Like individual teacher factors, a wide range of school factors have been considered related to teacher attrition, including sector, poverty level, grade level, area of licensure, school location, and school size. Of these, Smith and Ingersoll (2004) determined that sector and poverty, and grade level had the most significant impacts on
teacher attrition and movement between schools, while school location and size did not have significant impact. In fact, school sector had the greatest impact on teacher attrition:

Beginning teachers in charter, Catholic, and nonsectarian private schools were all more than twice as likely as their public school counterparts to leave at the end of their first year of teaching; beginning teachers in non-Catholic religious schools were more than five times as likely as were public school teachers. (Smith & Ingersoll, 2004, p. 702)

The authors also found that, while school level poverty was not associated with movement between schools, it was associated with attrition:

50% increase in the percentage of students approved to receive free or reduced price lunches (e.g., the difference between a school where 25% of the students are poor as opposed to a school where 75% of the children are poor) increased the risk of new teachers’ leaving by about 50%. (Smith & Ingersoll, 2004, p. 702)

Smith and Ingersoll (2004) also found that middle school teachers were found to be twice as likely to leave their schools as elementary teachers and high school teachers were 50% more likely (p. 702).

In response, researchers (Carroll, 2007; Educator Policy Innovation Center [EPIC], 2016) have suggested that retention strategies, in addition to innovative recruitment strategies, are necessary to address the problem of teacher shortage. They also argue that induction, in particular, is an important retention strategy (Carroll, 2007; EPIC, 2016; NTC, 2015; Teacher Support Partnership [TSP], 2009).

**Causes of attrition.** For many teachers the reasons they choose to teach, like the reasons they choose to leave, are complicated. The first years of teaching are “times of
intense learning,” and, Feiman-Nemser (2012) argued, “they are often a time of intense loneliness” (p. 10). Carroll (2007) explained that this is due to “the fact that educators find it difficult to move beyond the factory-era mentality” (p. 6). The “factory model” is not well-suited to the current generation of teachers who, as Feiman-Nemser (2012) argued, “seek more opportunities for collaboration and put less value on privacy and autonomy” (p. 16).

In a study of teachers who had recently left their positions, Rinke and Mawhinney (2017) described how competing factors impact decision-making as teachers are entering as well as exiting the profession (p. 368). These factors, as Clandinin et al. (2015) also noted, resulted in a decision-making process that “occurs over time” rather than “as a singular event or decision” (p. 2). As a result of the length of the decision-making process, researchers have found that teachers have wide-ranging reasons for leaving their classrooms.

Excessive workload and lack of support are commonly cited reasons teachers leave the profession (Hagaman & Casey, 2018; Rinke & Mawhinney, 2017). Other reasons such as principal leadership (Glazerman et al., 2008; Player, Youngs, Perrone, & Grogan, 2017), test-based accountability (Ryan et al., 2017), disagreement with curriculum (Glazer, 2018), and job insecurity (Glazer, 2018) have also emerged in the literature.

A surprising finding is that teachers at varying places in their decision-making process, from pre-service to those who have recently left teaching to those who support teachers, list similar reasons for teacher attrition. In a study focusing on attrition in special education, researchers found that pre-service teachers, new teachers, and
administrators supporting new teachers all ranked being overworked, lack of cooperation and support, and not enough training as the top reasons special education teachers leave the field (Hagaman & Casey, 2018, p. 282). The researchers also found that school climate and lack of respect were among the reasons participants were planning to leave teaching (Hagaman & Casey, 2018, p. 289).

In a study of early career teachers, Burke, Aubusson, Schuck, Buchanan, and Prescott (2015) found several differences between teachers who expressed interest in leaving the profession and those who intended to stay. First, those teachers who “expressed intentions to leave” received few supports in terms of resources, collaboration with experienced colleagues, intentional conversations with supervisors, and access to mentors than “stayers.” Second, “leavers . . . expressed a significant preference for having a voice in the professional activities of the school,” while “stayers . . . are indifferent with respect to the free forms of affirmation and inclusion that refer to professional recognition, professional voice, and executive interest” (Burke et al., 2015, p. 248). From these findings, the authors concluded that while both “leavers” and “stayers” benefit from intentional opportunities to collaborate, those who expressed intentions to leave also need school leaders to create space for their voice in the management of the school (Burke et al., 2015).

Similarly, Rinke and Mawhinney (2017) noted that “16 of 24 teacher leavers mentioned disillusionment, exhaustion, stress, or excessive workload within their school context” (p. 368). Glazer (2018) focused his study on what he termed “invested leavers,” or those who “were fully certified and made it through the difficult early part of the career before deciding to leave” (p. 62). For these teachers, disagreement with required
curriculum, impact of testing, and job insecurity as the greatest factors impacting their decisions to leave (Glazer, 2018, p. 65). External factors, such as contract and salary concerns, however, were discussed by less than a quarter of the teacher leavers in the study (Rinke & Mawhinney, 2017, p. 368). Other external factors do, however, play a role in the decision-making process.

Player, Youngs, Perrone, and Grogan (2017) examined environmental factors of attrition, including connections between teacher mobility, principal leadership and person-job fit. The authors suggested that principal behaviors such as “communicating a vision for the school to their staff and working to achieve that vision, being supportive to teachers with regard to instruction and other issues, recognizing exemplary teaching performance, and enforcing rules related to student behavior and discipline” (Player et al., 2017, p. 338) are factors in teachers’ decisions. Furthermore, Ryan et al. (2017) argued that “test-based accountability significantly predicted stress, attrition, and burnout” and “policies implemented around teacher evaluations, merit pay, and tenure decisions may influence teachers’ departure from school or the profession” (p. 8). Ryan et al. (2017) qualified their findings, however, and noted that administrative pressure may negatively predict attrition (p. 8), which may support the findings of Player et al. (2017) related to principal leadership and vision. However, in spite of support, teachers may still leave.

For example, Clandinin et al. (2015) suggested that support helped survival and feelings of success, but that did not necessarily mean that teachers see themselves staying in the field (p. 6). Furthermore, “even with support at home, only 37.5% were certain they were staying in teaching” (Clandinin et al., 2015, p. 6). The authors concluded that
“in this study the participants helped us see the importance of framing a teacher’s life as much more than who they are in schools” (Clandinin et al., 2015, p. 13).

This section reviewed the current state of teacher attrition, both nationally and statewide. In addition to the statistics, this section reviewed the literature related to the commonly cited causes of teacher attrition, which include excessive workload and stress, among other factors such as principal leadership and support. The following section will provide an overview of induction and review research related to the outcomes of induction.

**Induction Overview and Outcomes**

Three major reviews of the literature and a large experimental design study have focused on induction outcomes in recent years. First, Smith and Ingersoll (2004) attempted to determine the extent to which teachers were participating in induction programs and, from there, the extent to which induction programs improved retention. Second, Ingersoll and Strong (2011) updated previous work in order to “provide researchers, policymakers, and educators with a reliable and current assessment of what is known and not known about the effectiveness of teacher induction and mentoring programs” (p. 205). Third, Shockley et al. (2013) conducted a qualitative meta-analysis “in order to gain a better understanding of the essential elements of teacher induction programs, as well as the conditions of their implementation that reduce attrition rates in K-12 public schools” (p. 355). Finally, this section will review the findings of a randomized controlled study by Glazerman et al. (2008) that Ingersoll and Strong (2011) called “the largest, most ambitious, and most important study investigating the impact of induction” (p. 221). Glazerman et al. (2008), as well as the follow-up (Glazerman et al.,
2010) searched for causal links between induction and student achievement, teacher practice, and retention. The impetus for this study arose from the fact that “one of the main policy responses to the problems of turnover and inadequate preparation among beginning teacher is to support them with a formal, comprehensive induction program” (Glazerman et al., 2008, p. 1) in spite of the fact that “little of the research on teacher induction to date has been conclusive or rigorous” (p. 2). To that end, the experimental design of the Glazerman et al. (2008) study allowed for the comparison of a treatment group of teachers, who received comprehensive induction supports, and a control group, who received induction supports already in place in their schools and districts (p. 7). These, taken together, provide a foundation for this section of the review which focuses on the outcomes of induction and includes induction as a means to improve retention; induction as a means to improve instruction; and induction as a means to improve student achievement.

**Induction and retention.** Findings related to induction as a means to improve retention will be reviewed in this section. While induction continues to be an area of interest for researchers, empirical connections between induction and retention have not yet been found (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004). In fact, researchers (Glazerman et al., 2008; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004) have lamented both the lack of rigorous research in this area, as well as the conflicting conclusions that are present. For example, Shockley et al. (2013) noted that “non-empirical examples of school district self-reports of comprehensive induction programs that reportedly resulted in reduced teacher attrition” were not supported by empirical
evidence (p. 364). Ingersoll and Strong (2011), conversely, noted that “receiving comprehensive induction as opposed to the prevailing induction alone may not be able to persuade teachers to stay in [high-poverty, urban] schools at significantly higher rates (p. 227); however, “both theory and some of the evidence suggest that the quantity of induction is important” (p. 228).

Quantity, as it relates to induction, refers to the number of induction supports or the extent to which a program is “comprehensive.” Researchers (Glazerman et al., 2008; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004) agree that the number of induction supports new teachers receive varies widely. Smith and Ingersoll (2004), in this regard, tested the relationship between retention and several components of induction support, including mentoring, seminars, common planning, participation with a network of teachers, and supportive administrative communication. Among these, the authors found that having a mentor in the same field reduced the risk of attrition. They also contended that “teachers participating in combinations of activities were less likely to migrate to other schools or to leave teaching at the end of the first year” (Smith & Ingersoll, 2004, p. 706). Glazerman et al. (2008) also delineated their findings to include mobility, movement between schools, in addition to attrition, and found that “the difference in mobility patterns between the two groups [treatment and control] was not statistically significant” (p. 77). Ingersoll and Strong (2011) addressed these findings and argued that limited variability between the treatment group, who received comprehensive support, and the control group, who received “prevailing” induction support, “had implications for the findings” (p. 224). Furthermore, Ingersoll and Strong (2011) argued that
in any event, it could have been the case that induction for both the treatment and control groups had a positive effect compared to getting no induction at all, but the study could not determine this because all got some induction. (p. 224)

A follow-up secondary analysis study of the SASS (Ronfeldt & McQueen, 2017) arrived at similar conclusions with regard to the questions of migration and attrition. Specifically, the authors noted that “all induction supports were negative predictors of teacher attrition” (p. 403) with participation in beginners’ seminars, supportive communication from administration, and mentor support being the most statistically significant supports. The authors also concluded that multiple supports decreased likelihood of migration or attrition during the second year of teaching and across five years (Ronfeldt & McQueen, 2017, p. 406).

This section reviewed the literature related to induction as a means to support retention. While researchers have lamented inconsistent findings in the literature, there is wide agreement that induction programs that include multiple support components improve teacher retention.

**Induction and instruction.** Findings related to induction as a means to improve instruction will be reviewed in this section. Causal links between induction and instruction remain as elusive as the relationship between induction and retention. In spite of this, researchers have addressed the inconsistencies and uncovered promising connections between induction and improved instruction.

According to Ingersoll and Strong (2011), “conducting and evaluating classroom observations of teachers in the field can be time-consuming, laborious, and expensive” (p. 224) which results in small sample sizes. Large-scale studies of this topic (Glazerman
et al., 2008; Glazerman et al., 2010) have attempted to overcome these obstacles by reducing the number of observations. Ingersoll and Strong (2011) found this methodology to be problematic because regardless of how valid and reliable the observation instrument (the Vermont Classroom Observation Tool), it is unclear whether a single, relatively short classroom observation is sufficient to accurately characterize an individual’s teaching strategies and classroom management or whether it is likely to detect differences between treatment and control teachers after about half an academic year. (p. 224)

Ingersoll and Strong (2011) also reviewed studies whose strengths include the “close observation of teachers’ actual behavior in classrooms or their careful assessment of teachers’ practices through some kind of reflective interview” (p. 217) and concluded that it could take more than half a school year before instruction substantially improves. Accordingly, teacher development is an important topic of study.

In this regard, teacher development includes both observable teacher behavior as well as content and pedagogical knowledge. In terms of teacher behavior, Maulana, Helms-Lorenz, and van de Grift (2015) measured students’ perceptions of teaching practices and found that “inexperienced teachers are better in less difficult teaching behavior (i.e., learning climates and clear instruction), and they are still low in performing more difficult teaching behaviors (i.e., adaptation and teaching strategies)” (p. 237). The authors further noted that “beginning teachers in the induction group showed a much faster growth in the quality of classroom management, activating learning, and teaching learning strategies compared to their colleagues in the non-induction group over
time” (p. 238). In a study of primary teachers, Blömeke et al. (2015) found that while mathematical content knowledge and general content knowledge increased during the induction period, mathematical pedagogical content knowledge remained generally static. The authors further argued that “skill development and satisfaction seems to occur best if young teachers experience appraisal, collegiality, encouragement, and trust” (p. 304).

In summary, Ingersoll and Strong (2011) argued that, in spite of the conflicting results from Glazerman et al. (2008) and Glazerman et al. (2010), there is evidence to support the conclusion that “beginning teachers who participated in some kind of induction performed better at various aspects of teaching” (p. 225) including lesson planning and classroom management, among others.

Findings related to the connections between induction and improved instruction were presented in this section. Like retention, direct connections between induction and instruction are not present in the literature. Sufficient evidence, however, does exist to support the conclusion that participation in induction activities does improve instruction for beginning teachers.

**Induction and student achievement.** This section will review the literature related to the connections between teacher induction and improved student achievement. Researchers have argued that among the outcomes of induction, improved student achievement is the most difficult to connect directly to induction activities. Ingersoll and Strong (2011) noted that “since the activities of an induction program are at least one step removed from the students, it is challenging to design research that can test the existence of a causal relationship between teacher induction and student achievement” (p. 220). Shockley et al. (2017), similarly, argued that “student achievement is an expected
measure of teacher induction programs aimed at retaining teachers” (p. 365), rather than a direct aim of the induction program. As a result, research findings related to student achievement are inconsistent.

Like the other outcomes of induction, studies that indicate connections between induction and student achievement are countered by Glazerman et al. (2008) and Glazerman et al. (2010), which are widely considered the most rigorous studies on this topic. Although the authors did find some evidence of a positive relationship between increased induction support and higher test scores, the authors of both studies concluded that the findings were not statistically significant (Glazerman et al., 2008; Glazerman et al., 2010). Similarly, Ingersoll and Strong (2011) noted that although the studies they reviewed “showed some consistency in results” methodological weaknesses, such as lack of random assignment, limited the validity of the findings and necessitated further study.

This section reviewed the outcomes of induction, including impact on retention, teacher practice, and student achievement. While evidence supporting the impact of induction on these factors does exist, inconsistencies warrant further study. Researchers are specifically concerned that the research is, thus far, “atheoretical” (Ingersoll & Strong, 2011; Shockley et al., 2013) and have argued that “a better match between the theory behind teacher development and the empirical research could advance our understanding” (Ingersoll & Strong, 2011). Shockley et al. (2013) specifically argued that, although studies linking teacher retention to job satisfaction factors and motivation exist in the literature, “Herzberg’s (1968) model is underutilized in teacher motivation, job satisfaction, and retention studies and is worthy of further analysis” (p. 367).
**Induction Components**

As mentioned above, while studies suggest a link between induction and a variety of outcomes, “it has become clear that more needs to be done to distinguish the effective elements of the induction process from the impact of other forces” (Mitchell, Howard, Meetze-Hall, Scott Hendrick, & Sandlin, 2017, p. 81). Goals and intended outcomes, such as increased teacher retention and improved student achievement, impact the components of induction programs. Common components of induction programs include orientation, professional development, and mentoring (Feiman-Nemser, 2012; Huling, Resta, & Yeargain, 2012; Mullen, 2010; Nasser-Abu Alhija & Fresko, 2010; NTC, 2015; Smith & Ingersoll, 2004). The number of components and length of the program are factors that researchers use to distinguish comprehensive programs, those that “provide for a range of support mechanisms and opportunities for professional learning” (TSP, 2009), from more basic, orientation programs. Although less common, some induction packages also include common planning time, support from administration, reduced teaching load, and extra classroom support (Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004). A review of the literature by NTC (2015) summarized components of induction with the strongest research evidence. Table 2.1 lists these findings. This section of the review focuses on common components of induction. Particular attention is paid to mentoring due to the prevalence of this component in both the literature and in practice.
Table 2.1
NTC’s (2015) Induction practices with strongest research evidence

<table>
<thead>
<tr>
<th>Multi-Year Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>A federally funded randomized controlled trial of comprehensive teacher induction found that third-year teachers who received two years of comprehensive induction support produced greater student learning gains compared to colleagues served by prevailing induction programs. For teachers who received only one year of comprehensive induction, there was no impact on student achievement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mentor Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several quasi-experimental studies, as well as a federally funded randomized controlled trial, found positive impacts of comprehensive induction models that included an intensive mentor selection process. An evaluation of a state-funded induction pilot program found that induction models with more stringent requirements for mentor selection provide more intense mentoring and a stronger focus on instruction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full-Release Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerous quasi-experimental studies and program evaluations, as well as a federally funded randomized controlled trial, found positive impacts of comprehensive induction models that included full-time mentors with caseloads of no greater than 12-17 beginning teachers. One quasi-experimental study compared the impact of full-release versus site-based mentors and found greater student achievement gains in classrooms of new teachers supported by full-time mentors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>An Assigned Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research shows that beginning teachers who are assigned a mentor are much less likely to leave their school or teaching entirely.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of Mentor Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research evidence suggests that weekly contact between mentors and new teachers is a critical factor for program impact. Several studies and program evaluations, as well as a federally funded randomized controlled trial, found positive impacts of comprehensive induction models that included such regular contact.</td>
</tr>
</tbody>
</table>

**Common components.** Comprehensive induction programs often include combinations of the following components: administrative leadership, observation of experienced teachers, professional collaboration and professional development opportunities for new teachers. Evidence to support the individual efficacy of these components is lacking (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll &
Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004); however, as mentioned above, Ingersoll & Strong (2011) have noted that there is reason to believe that the combined impact is positive. Benefits of each component follow.

First, according to TSP (2009), new teachers benefit from administrative leadership that articulates expectations, provides time and resources, establishes positive school culture and effective evaluation processes (p. 9). Second, Martin, Buelow, and Hoffman (2016) found that the teachers in their case study “overwhelmingly highlighted observing experienced teachers as one of the most influential professional development activities throughout the year” (p. 6). These observations helped the teachers understand what their mentors were describing and were also a source of new content and pedagogical ideas (p. 7). Third, Martin et al. (2016) argued that “if they are not supported by a community, new teachers can become frustrated and alone when they are left to figure out their profession in isolation” (p. 9). Meetings focused on curriculum or student work can reduce the isolation and frustration, as long as the meetings are focused. Finally, because of limited time, professional development that focused on school or district initiatives, rather than their immediate needs, was perceived as irrelevant for new teachers (Martin et al., 2016, p. 10).

**Mentoring.** Mentoring is the most common component of induction programs and a frequent topic of study. Researchers have found that, while mentoring is common, teacher experiences with mentors vary widely in a number of ways, including the quality of mentoring (Langdon et al., 2016), time spent with mentors (Giles et al., 2013), and formality of the relationships (Martin et al., 2016). Some of this variation may be attributed to the way mentoring is conceptualized (Wang & Odell, 2002), as well as the
intention of the mentoring (Achinstein & Athanases, 2005; Wang & Odell, 2002). This section of the review begins with the ways in which mentoring has been conceptualized in the literature before turning to the topics of effective practice and characteristics of effective mentors.

**Conceptualization of mentoring.** Wang and Odell (2002) outlined two basic approaches to mentoring: knowledge transmission, where “mentors transfer their expert knowledge of teaching to novices in a hierarchical relationship,” and knowledge transformation, where “mentors work with novices in breaking the boundaries of school culture and knowledge of teaching to become reformers in their own classrooms” (p. 492). In the case of the former, Achinstein and Athanases (2005) argued that the result is often “socialization into a current system, with no challenge of dominant norms or beliefs” (p. 846), rather than the latter, which would provide new teachers with the “guidance to addressed the needs of their diverse students and to close achievement gaps” (p. 855). To this end, Achinstein and Athanases (2005) contended that “mentors who engage in [knowledge transformation] struggle with competing tensions about easing the transition of novices into the profession (socializing them into the culture of the school) and challenging the ways things are done in schools” (p. 859). Wang and Odell (2005) likewise noted that new teachers need mentor support in order to “examine their beliefs about teaching and learning to teach, to construct reform-minded images of teaching, and to develop relevant dispositions for learning to teach” (p. 513).

Richter et al. (2013) found that most teachers in their study “experienced constructivist-oriented mentoring” (p. 174) similar to Wang and Odell’s (2002) knowledge transformation approach. Furthermore, the authors argued that “beginning
teachers who experience constructivist mentoring show higher levels of efficacy, teaching enthusiasm, and job satisfaction and lower levels of emotional exhaustion,” while those teachers who experienced transmission-oriented mentoring increased little more than transmission-oriented beliefs (Richter et al., 2013, p. 174). In spite of this, new teachers may be expecting more day-to-day support and find themselves at odds with their mentors when the approach is transformative (Langdon et al., 2016, p. 158). For these reasons, the literature reflects conflicting perspectives related to effective mentoring practices.

**Effective mentoring practices.** Several themes related to effective mentoring practices are present in the literature and include trusting relationships, accessibility, and collaboration. It is interesting to note that, with some subtleties, these themes are similar among new teachers, experienced teachers, and mentors in much of the literature. The exceptions, as mentioned above, often arise from the differing needs of new and experienced teachers or when the status quo or prevailing assumptions of teaching are challenged. This section presents a short review of the literature related to commonly held perspectives about effective mentoring before turning to findings related to mentoring for change and social justice.

Many studies suggest that the foundation for effective mentoring is the establishment of trusting relationships. According to Sowell (2017), building trusting relationships allows mentors and teachers to have difficult conversations about instructional change (p. 130). From the mentors’ perspectives, putting teachers’ needs first, being readily available, and willing to listen to teachers’ concerns were important ways to build trust (Sowell, 2017). Giles, Carrillo, Wang, Stegall, and Bumgarner (2013)
found that “when [new teachers] encounter difficulties, they have to trust the mentors enough to reach out and problem-solve with them” (p. 81). For new teachers, privacy during meetings also helps to build trust (LoCascio, Smeaton, & Walters, 2016). Without trust, Sowell (2017) argued, “teachers will not be willing to allow observations or engage in thoughtful discussions or their work” (p. 131). In addition to trusting relationships, effective mentoring requires accessibility.

Once the trusting relationship has been built, new teachers need consistent and reliable contact with their mentors. Although this may seem obvious, studies have shown that many new teachers do not meet with their mentors consistently (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll & Strong, 2011; LoCascio et al., 2016; Shockley et al., 2013; Smith & Ingersoll, 2004). Time commitments can be challenging for mentors (Langdon et al., 2016) and new teachers, especially if the induction activities create additional work (Marshall et al., 2013). For this reason, studies have found that frequent and consistent meetings (LoCascio et al., 2016) that are guided by teacher-identified needs are most effective.

While new teachers often need and ask for support with instructional strategies and behavior management (Giles et al., 2013), experienced teachers count on mentors for continued professional growth in relation to instructional technology or strategies to support changing student demographics (Bressman, Winter, & Efron, 2018). For new teachers, mentors provide this support through observation with feedback, co-planning, and by offering recommendations (Giles et al., 2013). Furthermore, some teachers “implied that they needed specific, detailed advice that was directive rather than exploratory” (LoCascio et al., 2016, p. 117). Experienced teachers, however, prefer a
collaborative approach that respects their experience and knowledge without judgment (Bressman et al., 2018). While some researchers find this openness to support and mentoring hopeful (Bressman et al., 2018), others are working to determine how the assumptions teachers and mentors bring to the work impact mentoring effectiveness.

Wang and Odell (2002), for example, argued that both teachers and mentors “do not see mentoring as a direct support for, or influence on, novices’ learning to teach” (p. 513). The authors further argued that “mentors should engage novices in examining their beliefs about teaching and learning to teach, challenge them to construct new images of practice, and help them to develop relevant dispositions for learning to teach” (Wang & Odell, 2002, p. 533). Achinstein and Athanases (2005) reported similar findings and extended them to include a focus on social justice and differentiation. Specifically, the authors argued that “mentors need to understand the needs and competences of new teachers as learners, their receptivity to change and consciousness of equity concerns and the organizational context in which the novice is embedded” (Achinstein & Athanases, 2005, p. 859). For these reasons, researchers argue that further study is needed to determine the methods and contexts that will best support continued growth in these areas.

This section began by describing the ways mentoring has been conceptualized in the literature. It went on to describe the elements of effective mentoring. The next section will review the literature related to various models of induction, with particular focus on the specific model of induction being studied.
Induction Models

Researchers have studied various models of induction. The most significant difference between the models reviewed in this section is related to administrative oversight, which, for the purpose of this review includes models with state, university, and local administrative oversight mechanisms. This section will begin with an overview of Peer Assistance and Review (PAR), the induction model being studied, followed by state- and university-administered models.

Peer Assistance and Review (PAR). Peer Assistance and Review (PAR) is a teacher-led program of induction and was initially conceived and implemented in Toledo, Ohio, in 1981 (Goldstein, 2004, 2007a, 2007b; Johnson, Fiarman, Sick Munger, Papay, & Kalejs Qazilbash, n.d.; Lawrence, 2003; Papay & Johnson, 2012). At its inception, the Toledo PAR program sought to improve the quality of teaching by pairing expert teachers with new teachers or veteran teachers identified as needing intervention for the purpose of consultation and evaluation (Lawrence, 2003). In the years following implementation of the Toledo plan, as it is often referred, PAR was widely supported by teachers’ unions as a way to both support teachers and review teacher performance for the purpose of employment recommendations (American Federation of Teachers/National Education Association [AFT/NEA], 1998). In 1999, the California Legislature established and funded the first statewide PAR program, intended to support experienced teachers who had received below standard evaluation (California Department of Education, 2018). While proponents of PAR continue to cite its effectiveness as a tool for professional improvement, few examples of the program exist and limit opportunities for empirical research. Those studies that do exist have largely
been case studies focused on the effectiveness of the PAR model related to teacher evaluation (Goldstein, 2007b), needs and goals of teachers (Stroot et al., 1999), and cost (Papay & Johnson, 2012). These studies have also assessed PAR as a model of distributive leadership (Goldstein, 2004) and accountability (Goldstein, 2007a). With this in mind, this section begins by providing context for PAR, followed by program and policy recommendations and program outcomes.

According to AFT/NEA (1998), PAR is the result of concerns over teacher quality shared by policymakers, educational leaders, and teachers themselves (p. 7). Specifically,

for teachers, the nub of the teacher quality issues is not merely a matter of finding more efficient means by which to remove poor teachers from classrooms, but, more importantly, encompasses a more comprehensive approach designed to support beginning teachers and provide opportunities for less-than-stellar teachers to improve their practice (AFT/NEA, 1998, p. 7).

As a result, AFT/NEA (1998) recommended that districts carefully consider how their programs are designed.

Given that PAR is a significant investment, AFT/NEA (1998) outlined five key decisions districts and teachers’ unions needed to consider. First, districts need to decide the purpose of the program and should not be “solely for terminating teachers” (AFT/NEA, 1998, p. 15). Districts also need to articulate the parameters of the governing body, which according to AFT/NEA (1998) “are always administered jointly by management and the local affiliate (p. 15, emphasis in original). Third, districts need to determine who will receive support: new teachers, underperforming veterans, or both
Next, criteria for selection of consulting teachers need to be determined. PAR assistance is provided by experienced teachers who are most often referred to as consulting teachers, or CTs. The teachers they support, accordingly, are referred to as participating teachers, or PTs. Due to the intensity of the work with PTs, generally 1-2 hours per week, it is recommended that CTs be released from classroom responsibilities (AFT/NEA, 1998; Lawrence, 2003). In order to maintain credibility as a classroom teacher, it is also recommended that the terms of these positions be limited (AFT/NEA, 1998; Lawrence, 2003). Finally, districts need to determine how the program will be funded. AFT (2016) examined five long-standing PAR programs for the purpose of understanding “how some districts have been able to develop and sustain these programs” (p. 2). Key elements from these programs are listed in Table 2.2.

Table 2.2

<table>
<thead>
<tr>
<th>District → Feature ↓</th>
<th>Toledo</th>
<th>Niles Township</th>
<th>North Syracuse</th>
<th>Providence</th>
<th>Miami</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ratio of PT/CT</strong></td>
<td>Cap of 12:1</td>
<td>Cap of 15:1</td>
<td>Cap of 15:1</td>
<td>Cap 15:1</td>
<td>12:1 stated, but in practice ranges from 27:1 to 9:1</td>
</tr>
<tr>
<td><strong>CTs evaluate PTs new to school and/or intern (first-year) teachers</strong></td>
<td>Principals do not formally observe or evaluate interns’ classroom performance.</td>
<td>CTs solely responsible for evaluation during first and second year. Building principals observations incorporated into the CTs reports to the PAR panel.</td>
<td>All probationary teachers are on a four-year cycle.</td>
<td>Upon recommendation for continued support.</td>
<td>No</td>
</tr>
<tr>
<td><strong>CTs evaluate veteran teachers</strong></td>
<td>On a volunteer basis</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>On a volunteer basis</td>
</tr>
<tr>
<td><strong>CTs evaluate veteran teachers who fail to meet minimum</strong></td>
<td>Only upon request of the PT</td>
<td>Yes, but administrators generally handle these evaluations</td>
<td>Not currently</td>
<td>Yes</td>
<td>On a volunteer basis</td>
</tr>
<tr>
<td>standards of teaching</td>
<td>Interns stay two semesters (in rare occasions, three); veterans have one semester of CT support</td>
<td>One to four semesters</td>
<td>PTs remain in the program for four years</td>
<td>One school year</td>
<td>PTs stay as long as they want</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------</td>
<td>----------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Length of time PTs stay in program</td>
<td>Complementary but not identical training</td>
<td>Identical</td>
<td>Identical</td>
<td>Similar with additional training for CTs</td>
<td>Only CTs are trained</td>
</tr>
<tr>
<td>Training for CTs and administrators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract language stipulating terms of PR</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional compensation for CTs</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs report to PAR panel</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No PAR panel</td>
</tr>
<tr>
<td>CTs evaluations used for employment recommendations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Prior studies that have noted the importance of teacher perspective in the evaluation process. Specifically, Goldstein (2004) argued that, by sharing the responsibility of evaluation, districts increase the validity of teacher evaluation. In addition, the accountability structures present in PAR, between teachers, administrators, CTs, and PAR panels, positively impacts the professionalization of teaching by formalizing the role of teachers in the decision-making process (Goldstein, 2007a). Researchers have found, however, that, “self-regulation, central to professionalism and professionalization, has been slow to occur in education. Policy makers, practicing educators, and the public tend not to believe that teachers are capable of regulating themselves” (Goldstein, 2007b, p. 504). So, while administrators welcome assistance with teacher evaluation, they are somewhat hesitant to abandon active involvement in
teacher evaluation and their roles as instructional leaders (Goldstein, 2004). This hesitance has resulted in programmatic shifts from entirely teacher-led evaluations to shared decision-making models (Goldstein, 2004).

In addition to examining specific cases of PAR, researchers have studied the perspectives of teachers who receive PAR support. Using survey methodology, Stroot et al. (1999) sought to determine teachers’ perceptions of their professional needs and the impact of a specific collaborative PAR program. The results of the study, similar to studies of other induction programs, revealed that while teachers identified management as an area of need, they noted that PAR had the greatest impact on their social-emotional needs (Stroot et al, 1999). This finding supports later research on the cost and benefits of PAR (Papay & Johnson, 2012).

Definitive measures of the costs of teacher turnover and the benefits of programs to reduce attrition are lacking in the literature. Researchers argue that the scarcity is due to lack of interest as well as lack of conclusive methodology (Papay & Johnson, 2012). While Papay and Johnson (2012) found it easier to quantify the cost of a particular PAR program, which approached US$800,000 (p. 705), both short-term and long-term benefits were more difficult to quantify.

In the short-term, the authors considered the cost of current induction programs and administrative cost savings. Considering a variety of factors, such as the cost of PAR (US$6,000-$7,000), the costs of existing induction programs (US$4,525), and the average cost to replace a new teacher (US$10,000), the authors found that “a reduction in third-year teacher turnover of 9.2 percentage points would fully offset PAR program costs” (Papay & Johnson, 2012, p. 710). The authors further argued that “given the large
costs of pursuing teacher dismissals, though, PAR’s intervention program is cost-effective based entirely on short-term administrative cost savings” (p. 722). While the authors also considered other long-term measures, such as student achievement and organizational outcomes, these costs were much more qualitative than quantitative and were, therefore, difficult to quantify (Papay & Johnson, 2012).

This section of the review examined the history of PAR programs, including the context from which the programs arose. Policy recommendations, program outcomes, and cost analysis were also reviewed. Other induction models will be examined in the next section.

Other induction models. As mentioned above, while comprehensive induction programs, generally speaking, have similar components and mentoring is the most common component, there are some important differences between programs. Descriptions of six induction programs follow. Components of the induction programs are found in Table 2.3.

Table 2.3
Components of Induction Programs

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Educational Testing Service (ETS)</th>
<th>New Teacher Center (NTC)</th>
<th>New Teacher Support Program (NTSP)</th>
<th>Novice Teacher Induction Program (NTIP)</th>
<th>Teacher Education and Mentoring (TEAM)</th>
<th>Urban Teacher Education Program (UTEP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Leader</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mentor training</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Full-release mentor</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No (½ time)</td>
<td>Unknown</td>
<td>Also UChicago Staff</td>
</tr>
<tr>
<td>Funding source</td>
<td>US Dept of Ed</td>
<td>US Dept of Ed</td>
<td>RttT</td>
<td>Houston Endowment</td>
<td>State</td>
<td>UChicago</td>
</tr>
</tbody>
</table>
Educational Testing Service (ETS). Educational Testing Service (ETS) responded to the request for proposals for the Glazerman et al. (2008) and Glazerman et al. (2010) studies, which received funding from the U.S. Department of Education’s Institute of Education Sciences. ETS provided program coordinators to support mentor training and district coordinators and maintain mentor skills during the Glazerman et al. (2008, 2010) studies. ETS induction included full-time, full-release mentors with caseloads of 8-14 new teachers (Glazerman et al., 2010, p. 42). ETS program coordinators supported mentor selection by providing job descriptions, rubrics, and supporting the panelists (Glazerman et al., 2010, p. 42). This program also included a series of induction professional development sessions, study groups, opportunities to observe veteran teachers, and events called “Pathwise Induction Events, each of which is designed to help beginning teachers explore a particular aspect of their practice and become increasingly proficient as an educator” (Glazerman et al., 2010, p. 48).

New Teacher Center (NTC). New Teacher Center (NTC) also responded to a request for proposals for the Glazerman et al. (2008) and Glazerman et al. (2010) studies which received funding from the U.S. Department of Education’s Institute of Education Sciences.
Sciences. NTC’s program coordinators operated in very similar ways to those of ETS program coordinators and the program also included professional development sessions, study groups, and opportunities to observe veteran teachers (Glazerman et al., 2010). A key difference, however, was that new teachers and their mentors in the NTC program use the NTC Formative Assessment System (FAS) to gather data and set goals for the purpose of continuous improvement.

**Novice Teacher Induction Program (NTIP).** Novice Teacher Induction Program (NTIP) is an induction model “designed to capitalize on the expertise of newly retired master teachers” (Huling et al., 2012, p. 141). NTIP began in 2002 as a grant-funded research project that included “seven universities in the Texas State University System and 37 Texas school districts” (Huling et al., 2012, p. 141). After being selected, mentors receive initial training as well as weekly professional development sessions on “mentoring, case reviews, and group problem solving” (Huling et al., 2012, p. 141).

**New Teacher Support Program (NTSP).** New Teacher Support Program is “a university-based induction program targeted at North Carolina’s lowest-performing schools” (Bastien & Marks, 2017, p. 387). This program includes a three part induction model: “face-to-face and virtual instructional coaching; six professional development sessions; and, institutes (multi-day training sessions) help prior to and early in the school year” for all novice teachers in participating schools (p. 361).

**Teacher Education and Mentoring (TEAM).** The Teacher Education and Mentoring program is a replacement of Connecticut’s earlier checklist-style teacher accountability program (Ellis, 2016, p. 2). Unlike the earlier program, “TEAM was developed as a professional learning program” (Ellis, 2016, p. 3). In this program, each
teacher has three years to “complete a series of five modules, each aligned with Connecticut’s Common Core of Teaching, the set of teaching standards that serve as the basis of teacher evaluation across the state. The modules focus on the following domains: classroom environment, planning for instruction, instruction for active learning, assessment, and professional responsibilities” (Ellis, 2016, p. 3).

*UChicago Urban Teacher Education Program (UTEP).* Finally, University of Chicago Urban Teacher Education Program (UChicago UTEP) is a university-based teacher education and induction program created with the specific intention of preparing and then supporting teachers in their work in Chicago Public Schools (Hammerness & Matsko, 2012). In fact, the authors argued that “the setting is not simply a ‘site’ for training, but the setting itself represents important and unique content” (p. 561).

**Summary**

The literature review examined the connections between teacher induction and retention. Themes related to the research questions that emerged from the literature include attrition, outcomes of induction, components of induction, and induction programs.

Researchers (Ingersoll & Strong, 2011; Smith & Ingersoll, 2004) have found that induction programs are increasing in frequency, resulting in more beginning teachers receiving some measure of induction support as they are entering the profession. One large-scale and widely referenced study (Glazerman et al., 2008) and the follow-up study (Glazerman et al., 2010) did not find significant evidence linking induction supports to retention, teacher practice, or student achievement, however. While subsequent literature reviews (Ingersoll & Strong, 2011; Shockley et al., 2013) suggested that methodological
choices may limit the conclusions drawn by Glazerman, gaps in the literature related to induction program outcomes remain. To that end, research methodology and data collection methods chosen for this study, which will be described in Chapter Three, seek to address these gaps.
CHAPTER THREE

Methodology

Introduction

The purpose of this qualitative case study is to describe how induction practices impact teacher retention. Specifically, the researcher will examine program retention data and gather teachers’ perceptions related to the various components of the induction program being studied. The researcher believes that this information will begin the work of filling gaps in the understanding of induction and allow school leaders to make more informed decisions around induction program implementation. To this end, the study is focused by the question: How does induction impact retention? From this question, secondary questions seek to determine underlying connections, including:

1. What components of induction do teachers perceive are supportive?
2. How do teachers describe the influence of induction practices on their continued employment?

This chapter reviews the methodology for the study, including a review of the following: rationale for the study, research approach, study design, research sample, data overview, data collection methods, analysis methods, ethical considerations, and limitations.

Study Rationale

Although the percentage of new teachers participating in some form of induction program has increased from “about 4 in 10” during the 1990-1991 school year, to “about 8 in 10” by 1999-2000 (Smith & Ingersoll, 2004, p. 690), just over 17% of new teachers still choose to leave teaching after their first year (MDE, 2017, p. 24). Researchers have
argued that one possible reason for this discrepancy is that, while most teachers do receive induction support, the components, quality and duration of these supports vary widely (EPIC, 2016; NTC, 2016). Similarly discrepant data appear to be present in the context of the case being studied: in spite of implementing many, if not all, of the best practice, research-informed practices of teacher induction (NTC, 2015), attrition in the setting remains high. Ingersoll and Strong (2011) argued that one possible reason for the discrepancy and lack of empirical evidence linking induction and retention is that “much of the existing empirical research on the effectiveness of induction is atheoretical; it examines what works, but not why or why not” (p. 227). Similarly, Shockley, Watlington, and Felsher (2013) argued that program efficacy may be low due to the focus of program goals:

The goals of induction programs include the successful transition from student teacher/novice educator to professional educator, an orientation to school culture, support of teachers as they acclimate to their new profession and all of its challenges and the development and strengthening of their teaching skills. The results of this study point to the fact that teacher satisfaction and motivational factors are not generally included or are not part of the intent of most induction programs. (p. 373)

The approaches and methods utilized in this study have been selected with these discrepancies and suggestions in mind. To that end, the research paradigm rationale for the methodology will be presented next.
Research Approach

The examination of teachers’ perceptions and decision-making lent itself to a qualitative, rather than quantitative, research approach. The most significant reason for this choice was that, while fairly strong evidence connecting induction and retention exists (Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2002), evidence related to how and why induction works is lacking in the literature (Creswell, 2014). In this way, the knowledge gained during the study made the qualitative research approach appropriate for the topic of induction and the research questions, which sought to examine not only how the case being studied impacted teacher retention, but teachers’ perceptions of the case. With these in mind, a quantitative approach may have provided additional support for previously answered questions, whereas a qualitative approach provided opportunities for new knowledge and understanding related to teachers’ experiences with and understanding of the case. According to Merriam (1998), while “reality” in the quantitative sense is “stable, observable, and measurable, . . . understanding the meaning of the process or experience constitutes knowledge” (p. 4) within a qualitative approach. A constructivist perspective, or a constructivist worldview (Merriam, 1998, p. 6), provided further guidance related to the design and methods of this study.

The study design and methods were chosen based on a constructivist view of the world and a belief that teachers’ perceptions of induction are complex, subjective, varied, and multiple (Creswell, 2014, p. 8). This belief rested on examples from the researcher’s lived experiences as a teacher, an instructional coach, and now as a researcher. Further, the researcher believes that teachers’ experience “multiple realities” of induction which
are “socially constructed through individual and collective perceptions” (McMillan & Schumacher, 2010, p. 12). The researcher also believes that important insights will be gained from the examination of the “processes of interaction among individuals” in the “specific contexts in which people live and work” (Creswell, 2014, p. 8). Study methods, which follow, will provide access to multiple perspectives related to the impact of induction practices on teachers’ decision-making processes.

**Study Design**

Within the larger constructivist qualitative approach, the researcher selected case study methodology in order to understand *why* teachers might choose to leave the profession and *how* induction practices might impact their decision-making (Yin, 2018, p. 4). McMillan and Schumacher (2010) defined case study as “an in-depth study of a single entity” (p. 344). Stake (1995) noted that, in education, cases are interesting “for both their uniqueness and commonality. We seek to understand them” (p. 1). This was certainly true for the current study, as the researcher sought to understand how the study participants experienced a particular induction program.

To that end, for the purposes of the current study, the researcher has defined the bounded case (Merriam, 1998; Stake, 1995; Yin, 2018) because of the intrinsic, particular interest the researcher holds for this case (Stake, 1995). Furthermore, as Creswell (2007) argued, an intrinsic case study design has been selected by the researcher because “the case presents an unusual or unique situation” (p. 74). To that end, a description of the researcher’s role relative to the case is presented next, followed by a description of the setting, case, participants, and sample selection which was guided by the objective of obtaining particular information related to the selected case.
**Researcher’s role.** As mentioned above, the researcher’s roles as teacher, instructional coach, and researcher have each impacted the design of this study. As a result, according to Stake (1995), “the researcher contributes uniquely to the study of a case” (p. 103). Stake (1995) further argued that there are different roles for researchers, including teacher, advocate, evaluator, biographer, and interpreter among others and that the researcher “consciously or unconsciously makes continuous decisions about how much emphasis to give each role” (p. 91). To that end, the researcher was constantly aware of their role as instructional coach during the various stages of decision-making. This awareness led the researcher to employ an iterative process of referencing the data from a neutral position in an effort to avoid bias and to honestly and earnestly pursue answers to the research questions from the research and study data. This topic will be discussed in more detail relative to the limitations of the study, as well as in the discussions found in Chapter Five.

**Setting.** The setting for this study was a large, urban, Midwestern public school district that employs approximately 3,000 licensed teachers and serves approximately 37,000 PK-12 students. There are 56 schools and programs within the district that serve diverse student needs. Approximately 15% of the district’s students require special education services, 34% are English Language Learners, and 70% are eligible for free- or reduced-price lunches. The district’s students are also racially and linguistically diverse. Racially, approximately 31% of the enrolled students identify as Asian, 27% identify as Black/African American, 21% identify as White, 14% identify as Hispanic/Latino, and 6% identify as Multi-racial. Linguistically, approximately 56% of enrolled students identified English as their home language, 18% identified Hmong as their home
language, 9% identified Spanish as their home language, 8% identified Karen as their home language, 5% identified Somali as their home language, and 8% identify another language as their home language. The case presented in this study was drawn from this setting and will be described next.

**Case.** According to Yin (2018), “the desired case should be a real-world phenomenon that has some concrete manifestation” (p. 31). The case presented in this study is a particular type of induction program, Peer Assistance and Review (PAR). While PAR is a unique induction example, elements of research-based induction practices are present as well (NTC, 2015). Appendix A lists these practices. This case, however, was not chosen for its similarities to other induction programs, per se. Rather, according to Stake (1995) this case might be called *intrinsic*, because “we are interested in it, not because by studying it we learn about other cases or about some general problem, but because we need to learn about that particular case” (p. 3). To that end, the PAR program being studied was modeled after the Toledo Peer Assistance and Review program (Goldstein, 2007; Johnson, Fiarman, Sick Munger, Papay, & Kalejs Qazilbash, n.d.; Lawrence, 2003; Papay & Johnson, 2012) and has been a contractual component of tenure since 2010. The features of PAR will be described next, followed by a description of the participants.

**Features of PAR.** As described in Chapter Two, Peer Assistance and Review (PAR) was initially conceived as a way for teachers to improve instruction and manage teacher evaluation (Goldstein, 2007; Johnson et al., n.d.; Lawrence, 2003; Papay & Johnson, 2012). The common features of PAR and the manner in which they are present in this study’s case are outlined in Table 3.1. Instructional coaches working in the PAR
program are often referred to as consulting teachers, or CTs. In the case presented in this study, however, the coaches are referred to as PARs. Teachers receiving support are commonly referred to as participating teachers, or PTs. The number of PTs served by each CT in each of the programs reviewed by American Federation of Teachers (AFT) (2016) was restricted by a ratio of no more than 15:1 (see Table 2.2). This is the capped ratio for the case presented in this study as well. PARs in the case collect data in support of PT evaluation, but administrators are solely responsible for probationary evaluation. Although the majority of the PTs supported by PARs are probationary, veteran teachers may request support on a voluntary basis. PARs do not evaluate veteran teachers, however. Probationary PTs receive PAR support for one school year/two semesters. Veteran PTs, because the support is voluntary, determine the duration of their work with PARs. PARs begin each school year with eight days of team training, which includes topics related to coaching, evaluation, and other functions related to the work with PTs. Administrators and CTs receive similar training related to the topic of evaluation, and some administrators have also received the same training related to coaching; however, the training for administrators does not occur annually, as it does for PARs. PARs work three weeks beyond the calendar outlined in the teacher contract and, therefore, receive additional compensation. PARs also make presentations to an oversight panel twice during the school year. PARs present summaries of administrator evaluation feedback, teachers’ professional goals, and coaching plans in the fall. Administrator evaluation feedback and administrator recommendations for contract renewal are presented in the spring. Although PARs present the evaluation feedback and recommendations for
renewal, per state law (Minn. Stat. 122A.41, 2018), decision-making rests entirely with the teachers’ licensed supervisors.

Table 3.1
*AFTs (2016) Features Present in Case Being Studied*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of PT/CT</td>
<td>Cap of 15:1</td>
</tr>
<tr>
<td>CTs evaluate PTs new to school and/or intern (first-year) teachers</td>
<td>Administrators solely responsible probationary evaluation; data collected by CTs is shared with administrators and supports evaluation</td>
</tr>
<tr>
<td>CTs support and coach veteran teachers</td>
<td>On a volunteer basis</td>
</tr>
<tr>
<td>CTs evaluate veteran teachers who fail to meet minimum standards of teaching</td>
<td>No</td>
</tr>
<tr>
<td>Length of time PTs stay in program</td>
<td>Probationary teachers receive one school year of support; veterans’ support varies</td>
</tr>
<tr>
<td>Training for CTs and administrators</td>
<td>Similar with additional training for CTs</td>
</tr>
<tr>
<td>Contract language stipulating terms of PR</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional compensation for CTs</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs report to PAR panel</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs evaluations used for employment recommendations</td>
<td>No</td>
</tr>
</tbody>
</table>

**Participants.** Most PTs receive PAR support during their second year of employment (probationary year) with the district, after receiving mentor support during their first year of employment (see Table 3.2). In previous years, PAR support was provided during PTs’ first year; however, program evaluation survey data indicated that PTs preferred to have building mentors their first year and PAR support during their second year. PTs have also noted a strong preference for close content/experience pairings with PARs. For that reason, some PTs’ PAR support is deferred until Year Three and others receive PAR support during their first year. It should also be noted that years
of service are determined with respect to PTs’ number of student contact days, according to state law (MINN. STAT. 122A.41, 2018). The probationary years listed in Table 3.2 reflect years of service defined in this manner.

Table 3.2
*Teachers by Probationary Year*

<table>
<thead>
<tr>
<th>Probationary Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td>3</td>
</tr>
<tr>
<td>Year Two</td>
<td>70</td>
</tr>
<tr>
<td>Year Three</td>
<td>35</td>
</tr>
</tbody>
</table>

Sixty percent, or 65 of the 108 PTs initially receiving PAR support, had fewer than four years of previous teaching experience (see Table 3.3). The remaining 40% of PTs had four to ten or more than ten years of experience. Previous induction research has often been limited to studies related to new or first-year teachers (e.g., Ingersoll & Strong, 2011), with a few exceptions (e.g., Glazerman et al., 2010). While there is some measure of discretion relative to the placement of PAR as mentioned above, state law (MINN. STAT. 122A.41, 2018) requires that all teachers complete tenure requirements, regardless of previous experience or achievement of tenure.

Table 3.3
*Teachers by Previous Experience*

<table>
<thead>
<tr>
<th>Previous Teaching Experience</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4 years’ experience</td>
<td>65</td>
<td>60%</td>
</tr>
<tr>
<td>Between 4 to 10 years’ experience</td>
<td>17</td>
<td>16%</td>
</tr>
<tr>
<td>More than 10 years’ experience</td>
<td>26</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100%</td>
</tr>
</tbody>
</table>
Interview participants were selected with greatest consideration to their probationary year and whether they also had received mentor support during their first year. Participants for the interview were exclusively Year Two PTs and also received mentor support during their first year. Six of the seven participants had less than four years of previous teaching experience; the seventh participant had more than ten years of experience. While years of experience was also a consideration and most of the survey participants had fewer than four years of experience, one exception was made in order to have greater variation relative to other factors such as content, grade-level, gender, and race. The research sample and rationale for the sampling method will be described in the following section.

**Research Sample**

The research sample for the case presented in this study was selected to participate in semi-structured interviews. In order to “select a sample from which the most can be learned” (Merriam, 1998, p. 61), the researcher selected a purposeful sampling strategy. Owing to the fact that much demographic data on potential participants was available to the researcher, participants were selected in order to provide maximum variation related to gender, self-identified race, grade-level, and job description. To this end, the researcher accessed archival records, in this case a spreadsheet prepared for the PAR oversight panel, for demographic information in order to develop the most complete and rich representations of the study sample. The objective of this sampling method was to “increase the likelihood that the findings will reflect differences or different perspectives” (Creswell, 2007, p. 126) within the defined case.
To that end, the interview participants, as mentioned above, were drawn from the PTs who were still teaching in the district the fall after receiving PAR support. These participants were PTs who have first-hand knowledge and experience of the PAR program. As mentioned above, they were “second year” probationary teachers when they had received PAR support and had also received mentor support during their first year with the district. Teachers who did not receive mentor support or those who are receiving PAR support during their first or third year were excluded. In addition, as Stake (1995) argued, “selection by sampling of attributes should not be the highest priority. Balance and variety are important; opportunity to learn is of primary importance” (p. 6). For this reason, other demographic criteria, as mentioned above, was considered.

Data Sources

Stake (1995) argued that “all researchers have great privilege and obligation: the privilege to pay attention to what they consider worthy of attention and the obligation to make conclusions drawn from those choices meaningful to colleagues and clients” (p. 49). To assist in meeting these objectives, Merriam (1998) offered that, for qualitative case studies, interviews, observation, and document analysis are frequently used in order to support “understanding of the case in its totality” (p. 134). For the current study, data sources included recommendations presented to the oversight panel, secondary analysis of evaluation data, and semi-structured interviews of participants. Each of these sources will be described next, beginning with recommendations presented to the oversight panel, followed by evaluation data and interviews.

Recommendations to oversight panel. Each fall and spring, presentations are made to the program oversight panel. Participants’ progress, as measured by the district’s
evaluation rubric, are presented to the panel by the consulting teachers (referred to as PARs). These presentations to the oversight board are a common feature of PAR (see Table 3.1). The data for the presentations were compiled by PARs from PTs’ fall, winter, and spring evaluations using Google Forms and Google Sheets. Administrative recommendations were also gathered by PTs and documented on a Google Spreadsheet. Tables displaying group and individual results were created using the data supplied by PARs and presented to the oversight board.

These data were selected for their connection to the primary research question: *How does induction impact retention?* In very direct ways, they represent the number of PTs that will be retained and the general performance categories for retention. Previous research has described attrition (e.g., Carroll, 2007) and the reasons teachers may not be retained (see for example, Ingersoll & Strong, 2011). These data, along with the racial disaggregations, provided a description of retention criteria within the case.

**Evaluation data.** Evaluation data presented to the oversight board were based on several classroom observations for each participant. These evaluation data were used to present group and overall trends relative to large performance domains from the teacher evaluation rubric. These domains define teacher practice relative to instructional strategies, classroom environment, and professional responsibilities. The teacher evaluation rubric further defines each domain by element, including instructional practices such as Purposeful Talk and Behavior Monitoring and Response. PTs’ evaluation results for each element were recorded which made secondary, and more descriptive, analysis of PTs instructional practices possible. Secondary analysis of these
data was undertaken in response to previously identified limitations related to teacher practice (Ingersoll & Strong, 2011).

These data were also selected in support of the primary research question: *How does induction impact retention?* Evaluation data, described in finer detail by element with further comparison between PTs who were recommended for renewal and PTs who were not recommended for renewal, revealed patterns of instruction common to each group.

**Semi-structured interviews.** Interview data, as Merriam (1998) noted, “is necessary when we cannot observe behavior, feelings, or how people interpret the world around them” (p. 72). Merriam (1998) further explained that “it is also necessary to interview when we are interested in past events that are impossible to recreate” (p. 72). In the current study, past events include recollections and perceptions of the induction components, including coaching, lesson plan feedback, data collection and observation, self-assessment, evaluation and feedback, and goal-setting.

Because the researcher sought to understand whether and/or how the participants came to value and utilize the varying support systems of the induction program being studied, interviewing was a particularly well-suited method of data collection. For this reason, and drawing from Herzberg’s (1968b) interview methodology, the interview questions were framed to elicit “a specific episode or course of action” (Brinkmann & Kvale, 2015, p. 181). “Predetermined questions,” as Merriam (1998) noted, “may not allow [the researcher] to access participants’ perspectives and understandings of the world” (p. 74). On the other hand, an unstructured interview approach would not be appropriate either, because as Merriam (1998) further noted, “one of the goals of the
unstructured interview is, in fact, learning enough about the situation to formulate questions for subsequent interviews (p. 75). To this end, a semi-structured interview approach was utilized and the interview was guided by a “list of questions or issues to be explored” (Merriam, 1998, p. 74) which allowed the perspectives and ideas of the subjects to emerge. As Feiman-Nemser (2012) pointed out, the first years of teaching can be very lonely; the job of teaching can be extremely emotional in other ways as well. Induction research has shown that induction practices and mentoring in particular can reduce the feelings of isolation (Martin, Buelow, & Hoffman, 2016). In addition, narrative structure of the PTs’ responses allowed for rich description of their experiences with the induction components and space for them to share whether or how they perceived induction components as supportive.

These data were selected for their connection to the secondary research question: *What components of induction do teachers perceive as supportive?* Linguistic analysis was used to identify patterns within the responses related to the primary category from the research question and then to identify potential factors underlying the response. Further discussion of the analysis methods follow.

**Data Collection**

Yin (2018) argued that multiple sources of data allow the researcher to “develop converging lines of inquiry” (p. 127). To this end, as mentioned above, the researcher examined participants’ evaluation data, in addition to interviews, in an attempt to uncover themes in the data. However, as Merriam (1998) noted, “one or two methods of data collection predominate; the other(s) play a supporting role in gaining an in-depth understanding of the case” (p. 137). As mentioned above, evaluation data was accessed
via Google Forms and Google Sheets, as it was presented to the oversight board. Secondary analysis of evaluation data was accessed from the source of the data presented to the oversight board. For these reasons, the primary focus of this section of the chapter is the interview data collection methods.

As mentioned above, seven PTs participated in semi-structured interviews for this study. After it received Institutional Review Board approval, an informational recruitment email was sent on December 18, 2018 to 86 of the 108 participants who received PAR support during the previous school year (see Appendix D). Twenty-two participants responded to the recruitment email between December 18, 2018 and January 7, 2019. Follow-up emails (see Appendix E) regarding the maximum purposive sampling strategy being used in the study (McMillan & Schumacher, 2010) were sent to respondents between December 22, 2018 and January 15, 2019. In order to gather a wide range of perspectives (McMillan & Schumacher, 2010), eight participants were selected using available demographic data related to content, grade level, self-identified race and gender. Between January 16, 2019 and February 2, 2019, participants were notified of their selection by email (see Appendix F), which included the Institutional Review Board-approved consent form (see Appendix G).

Of the eight selected participants, seven responded and interviews were interviewed between January 25, 2019 and February 27, 2019. Participants were invited to choose a location that was most comfortable for them. For this reason, four of the seven interviews were conducted in various school locations. One participant selected a local coffee shop for the interview location. The final two participants were not able to attend a face-to-face interview, for varying reasons, so phone interviews were conducted.
Interview guides (see Appendix C) were emailed to each participant in advance and paper copies were made available during the interviews. Each interview was digitally recorded; however, due to very cold weather during the time of the interviews the battery for the recording device failed resulting in partial recording for two of the interviews. Notes were also taken during each interview and were used to support analysis. Each of the interviews was also professionally transcribed. The transcriptions were emailed to the participants for review prior to analysis.

Data Analysis

According to Stake (1995), “Analysis is a matter of giving meaning to first impressions as well as to final compilations” (p. 71). Merriam (1998) further explained that data analysis is the process of making sense out of data. And making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read—it is the process of making meaning. (p. 178)

The process of categorical analysis has been defined and described in various ways in the literature. Stake (1995) defined the analysis process as occurring both during and after data collection, either through direct interpretation of a single event or through categorical “aggregation of instances until something can be said about them as a class” (p. 74). Similarly, Merriam (1998) referred to the process as simultaneous categorical methodology, wherein the data is analyzed as it is collected (p. 162). Finally, McMillian and Schumacher (2010) defined the process as “recursive” and “involving the repeated application of a category to fit codes and data segments” (p. 327). For the current study,
the data was analyzed in two separate parts before the final analysis. First, evaluation data was analyzed for patterns, particularly as the data for PTs recommended for renewal was compared to that for PTs who were recommended for non-renewal. Second, in order to understand PTs’ perspectives related to the induction components, the interview data was analyzed using simultaneous categorical analysis. The final stage of analysis required integration of the two data sets in the interest of the primary research question: How does induction impact retention? As Merriam (1998) noted, “the category scheme does not tell the whole story—that there is more to be understood about the phenomena” (p. 188). Integration of theory, specifically Herzberg’s (1968b) two-factor theory (Shockley et al., 2013), was helpful at this point in the analysis. Description of the data analysis process for evaluation data and interview data follows.

**Evaluation data.** As mentioned above, evaluation data was gathered for presentation to the oversight board. Google Forms and Google Sheets were used to facilitate the process. The overall evaluation data and recommendations for renewal and non-renewal were presented to the oversight board. The first stage of analysis involved description of general patterns. Specifically, analysis of the evaluation data included description of patterns from fall to spring evaluation, as well as description of patterns of renewal overall and disaggregated by race. The trends were then used to compare the general outcomes of PAR with state and national retention data. Further analysis of the evaluation data was necessary, however, to address gaps in the knowledge related to the impact of PAR on PTs’ instructional strategies. The analysis and description of PT evaluation data utilized the language of the teacher evaluation tool. A description of the teacher evaluation tool follows.
The evaluation tool used in this case divides the practice of teaching into three domains: Elements of Effective Instruction, Environment for Learning, and Professional Responsibilities. The domains are then subdivided into elements of practice for each domain. For example, Questioning and Discussion is an element in the Elements of Effective Instruction domain and Behavior Monitoring and Response is an element in the Environment for Learning domain. The elements are further described by sub-elements ranging in number from two-five, depending on the complexity of the element. The level of quality, or performance indicators, are described as “Distinguished,” “Proficient,” “Developing,” and “Below Standard.” Descriptors measure frequency of use or quantity and, as such, use common descriptive adjectives across elements. For example, few, no, or none are common descriptive adjectives for “Below Standard” elements. By comparison, many and most are common descriptive adjectives for “Proficient” elements. Evaluations are recorded using Microsoft Excel. Formulas in Excel calculate element, domain, and overall scores using rounding rules for each element and domain. For the purposes of reporting to the oversight board, PARs entered the proficiency ratings for each element and domain, excluding the ratings for the sub-elements, after they were calculated in Excel. The formulas present in the Excel document were not preserved or recreated in Google Sheets. For the purpose of deeper analysis, whole numbers were assigned to each performance indicator, with “Distinguished” worth four points, “Proficient” worth three points, “Developing” worth two points, and “Below Standard” worth one point.

As mentioned above, the overall data presented to the oversight board suggested a general pattern of growth for the PTs as a whole. These data also suggested a link
between performance and recommendations for renewal. This analysis sought deeper and more specific description of the professional practices for PTs recommended for renewal and those recommended for non-renewal. The first comparison described the mean number of elements by performance indicator for each group. From these calculations, comparisons related to the frequency of practice could be made between the two groups. It would stand to reason that teachers recommended for renewal had, on average, more elements evaluated as “Proficient.” This comparison offered an opportunity to confirm that reasoning. The second comparison compared the mean score per element for each group. These data revealed differences in the frequency of specific instructional practices between the two groups. Researchers have noted that a gap in the literature limits our understanding relative to the impact of induction on instructional practices. While limitations in this study suggest that there is still much work to be done, these data provided an important next step. Specifically, the data allowed the researcher to describe not only that the use of best practice strategies is less frequent for PTs who are recommended for non-renewal, but which instructional strategies were used less and, to some extent, how much less.

**Interview data.** As mentioned above, Merriam (1998) argued that “the right way to analyze data in a qualitative study is to do it simultaneously with data collection” (p. 162, emphasis in original). The stages of analysis were informed by the recommendations of Merriam (1998), as well as McMillan and Schumacher (2010) and Stake (1995), and included initial reading for units of data, categorization and naming, further analysis, and tabulation of frequency. Each of these steps will be described in greater detail, beginning with initial reading for units of data.
**Units of data.** Interview notes were read following the interviews and then read again once the interview transcripts were received. The outcome of initial reading was to find and mark what Merriam (1998) refers to as “units of data” (p. 179). The units of data were distinct, as selected for two reasons: they “reveal[ed] information relevant to the study” (Merriam, 1998, p. 179) and each also stood on its own as a specific idea. As additional notes and transcripts were read and additional units were identified, the process of categorization began (Merriam, 1998).

**Categorization and naming.** Linguistic (Brinkmann & Kvale, 2015) and theoretical (Cresswell, 2014) considerations informed the naming of the categories (Merriam, 1998). As mentioned above, Herzberg (1968b) divided motivation factors into two separate continuum: one to measure factors of safety and security and the other to measure affective factors, such as satisfaction and achievement. See Appendix B for a graphic of Herzberg’s (1968b) Two-Factor Motivation Theory. Herzberg (1968b) and later Shockley et al. (2013) argued that employees will continue to work in places where they feel safe, are paid well, are growing professionally, and are acknowledged for their achievements. On the contrary, workers will leave jobs when there is tension between their beliefs and company policy or when there are consistent messages of failure (Herzberg, 1968b; Shockley et al., 2013). Based on this theory, Shockley et al. (2013) argued that:

> With regard to Herzberg’s hygiene and motivational factors, some components [of induction] may remove hygiene dissatisfiers, such as improved relationships with supervisors, and others may satisfy motivational factors, such as the level of
responsibility given to the teacher in decision-making, but the combination of factors has yet to be determined. (p. 368)

As a result, the units of data were initially divided into two main categories, supportive and not supportive, following the example of Herzberg’s (1968b) process that resulted in the Two-Factor Motivation Theory. A few units of data did not meet the definition of either category, resulting in a third category of neither. Specifically, the use of negatives (no, not) or expression of preference (“X was my favorite part”) were used to sort the units of data into these initial categories.

Further analysis. As Merriam (1998) pointed out, “data often seem to beg for continued analysis past the formation of categories” (p. 188), which proved to be true for the case presented in this study. Through a similar analytical process, Herzberg (1968b) defined “first-level factors,” or “objective element[s] of the situation in which a respondent finds a source for his good or bad feelings about the job” (p. 193). To that end, analysis of the remaining interviews, as well as the recursive analysis process after all of the interviews were initially read (McMillian & Schumacher, 2010), resulted in the identification of six factors that PTs referenced as they responded to the interview questions (see Table 3.4).

Table 3.4
Support Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>A factor related to the criteria a participant used to judge value – e.g., whether something was done well or was worth doing.</td>
<td>I'm already conflicted - SET is not critical. There's no critical aspect to it. Formulaic</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>A factor related to and based on relationships.</td>
<td>She could help fill in the EL gaps that my principal didn't have because of the EL thing. It helped build a relationship with my admin.</td>
</tr>
</tbody>
</table>
Tabulation of frequency. At this point, categories and factors for each unit of data each had been collected in a Google Sheet which made tabulation of frequency (Stake, 1995) and visualization of the data possible. Tabulation and visualization was also helpful in analytical terms. According to McMillan and Schumacher (2010), “diagrams assist researchers in moving to a more abstract analysis by allowing them to task different questions of the data” (p. 380). This was true for the tabulation and visualization of the interview data as well. Drawing again from Herzberg (1968b), factors of support, either supportive or not supportive, were tabulated and organized into continuums for each of the induction components. Presented this way, it was possible to see whether PTs perspectives relative to each component, as well as which factors were most commonly used to arrive at that perspective.

Delimitations, Limitations, and Biases

Delimitations of the current study include a specific cohort of the program being started. In addition, although some teachers received programmatic support during their
first and third years of employment with the district, participants will be limited to those in their second year of employment. The researcher chose these bounds as a result of program evaluation results, which indicate that most program participants prefer to participate during their second year of employment and because program documents indicate this preference as well. These delimitations may, because they limit the number of eligible participants for the study, impact confidentiality. As a result, additional measures to ensure confidentiality were included in the study design and outlined in the IRB consent form (see Appendix G).

Limitations of the current study are similar to other case studies, which include the inability to generalize the results of the study due to the small sample size. However, as researchers (Merriam, 1998; Stake, 1995; Yin, 2018) noted, the particular, specific, and rich descriptions that emerge from case study counterbalance this limitation.

Researchers (Merriam, 1998; Stake, 1995) also argue that a researcher’s vested interest in a case drives a need to learn about that case in particular. In this way, the researcher’s role and experience as an instructional coach and team lead for the program being studied creates both vested interest as well as biases. Accordingly, the researcher’s role in the study design, data collection, and analysis were carefully considered and made transparent for the reader. Furthermore, the constructivist approach of the study design, with accompanying detail, invited the reader to co-construct knowledge and understanding of induction within the study report (Stake, 1995).
Institutional Review Board Approval

Institutional Review Board approval was received on December 10, 2018. Prior approval from the setting was received on August 22, 2018 for the period beginning August 7, 2018, ending June 15, 2019.

Summary

In summary, the purpose of this chapter was to review the methods for the current study. A constructivist case study approach was selected by the researcher for the purpose of gaining deep understanding of the impact of induction practices related to retention. To this end, the researcher examined evaluation data in addition to interview data. Purposeful sampling strategies were used in order to access maximum variation in service of the study’s purpose. Finally, simultaneous data analysis methods were employed in order to capture themes as they emerged.
CHAPTER FOUR

Results

Introduction

For a variety of complex reasons, teachers leave education at higher rates than professionals in other fields (Carroll, 2007; EPIC, 2016; MDE, 2017; NTC, 2015; TSP, 2009). This chapter presents the findings of a qualitative case study of a specific induction program and forms a response to the primary research question: How does induction impact retention? Results presented in this chapter also address the secondary questions, including:

1. What components of induction do teachers perceive are supportive?
2. How do teachers describe the influence of induction practices on their continued employment?

Researchers choose qualitative methodology in order to “understand the meaning people have constructed” (Merriam, 1998, p. 6, emphasis in original). Case study, according to Merriam (1998), “might be selected for what it can reveal about a phenomenon, knowledge we would not otherwise have access to” (p. 33). This approach and the case study methods were chosen to answer these questions in large part because the review of the literature revealed conflicting results related to induction in recent years (Glazerman et al., 2008; Glazerman et al., 2010). The results of this case study seek to address these conflicts in two specific ways:

1. Ingersoll and Strong (2011) argued that a limitation of Glazerman et al. (2008) and Glazerman et al. (2010) was that they were based, in part, on one classroom observation. The findings reported in this chapter address this limitation by
examining evaluation data informed by several observations by at least two 
trained observers for each of the participants in the case.

2. Shockley et al. (2013) contended that previous findings were limited because they 
lacked a theoretical framework, specifically motivation as framed by Herzberg 
(1968b). The findings reported in this chapter address this limitation by 
describing teachers’ perceptions of the case being studied through a continuum 
of support, similar to Herzberg’s (1968b) two-factor theory. See Appendix B for 
a graphic of Herzberg’s (1968b) Two-Factor Motivation Theory.

To arrive at these results, a variety of data were collected and analyzed, including 
evaluation data and induction program documents. Interviews were conducted in order to 
access the perspectives of teachers who had received induction supports provided by the 
case being studied. In order to answer the research questions, the resulting multiple lines 
of data (Yin, 2018) are shared with qualitative descriptive approach and a focus on 
identifying patterns related to teacher retention and perceptions of induction support.

This chapter is organized by data type, a choice which is both a function of the 
study design and reflection of the literature. As mentioned in Chapter Two, retention and 
attrition can be thought of as the inverse of each other: while retention is the number of 
teachers who remain, attrition is the number of teachers who leave. To that end, 
evaluation data are closely connected to research question one: *How does induction 
impact retention?* and present a picture of teacher retention as a result of participation in 
the induction program being studied. Similarly, interview data are closely aligned to the 
secondary questions: *What components do teachers perceive are supportive?* and *How do 
teachers describe the influence of induction practices on their continued employment?*
These data present a picture of how the teachers experienced the induction program components, whether they found the components to be supportive, and the impact of induction experiences on their employment decisions. As a result, after an overview of the case, findings from evaluation data are presented, followed by findings from interview data.

**Overview of the Case**

The case studied was an example of a Peer Assistance and Review (PAR) program and an example of a specific model of induction for teachers new to the school district. Several factors make this case a unique example of induction (Creswell, 1974), including the use of PAR as a phase of induction as well as state and local tenure requirements. Other factors, including the features of the case as an example of PAR and the types of induction components provided, are less unique. These factors have been included, however, in order to provide a clear description of the case.

**PAR as a phase of induction.** The application of PAR as a phase of induction in the case being studied is unique. While the one-year length of the program is similar to other PAR programs (AFT, 2016), the inclusion of PAR within a larger program of induction is unique to the case being studied because teachers commonly receive PAR support during their first year (AFT, 2016; Lawrence, 2003), most teachers in the case being studied work with a building mentor during their first year with the district and then receive PAR support during their second year (see Table 4.1). Exceptions, which result in first- or third-year teachers receiving PAR support, arise from the policy of matching participating teachers (often abbreviated as PTs) with PARs, or Consulting Teachers (often abbreviated as CTs), by license and experience. This was particularly
true for teachers in special education, English Language, and early childhood, which were considered to be very specialized and necessitated a careful PT/CT match.

Table 4.1
Teachers by Probationary Year

<table>
<thead>
<tr>
<th>Probationary Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td>3</td>
</tr>
<tr>
<td>Year Two</td>
<td>70</td>
</tr>
<tr>
<td>Year Three</td>
<td>35</td>
</tr>
</tbody>
</table>

State and local requirements. State evaluation and tenure laws and contractual agreements are also unique features of the case being studied. Due to the size of the district, the probationary period for the case being studied is three years for all teachers, regardless of previous achievement of tenure (MINN. STAT. 122A.41, 2018). As a result, it is important to note that not all teachers who participated in PAR were newly licensed teachers (see Table 4.2). In fact, when asked to report previous years of experience, almost a full quarter of the teachers in the case being studied reported having more than ten years of previous teaching experience. Most recent studies, and certainly the large-scale controlled studies (Glazerman et al., 2008; Glazerman et al, 2010), have focused on induction outcomes for teachers with little to no previous teaching experience.
Table 4.2
Teachers by Previous Experience

<table>
<thead>
<tr>
<th>Previous Teaching Experience</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4 years experience</td>
<td>65</td>
<td>60%</td>
</tr>
<tr>
<td>Between 4 to 10 years experience</td>
<td>17</td>
<td>16%</td>
</tr>
<tr>
<td>More than 10 years experience</td>
<td>26</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100%</td>
</tr>
</tbody>
</table>

Features of the case as an example of PAR. American Federation of Teachers (AFT; 2016) analyzed several long-standing PAR programs and listed common features among them. Whether and/or how these features are present in the case being studied are described below (see Table 4.3).

Table 4.3
AFTs (2016) Features Present in Case Being Studied

<table>
<thead>
<tr>
<th>Feature</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of PT/CT</td>
<td>Cap of 15:1</td>
</tr>
<tr>
<td>CTs evaluate PTs new to school and/or intern (first-year)</td>
<td>Administrators solely responsible probationary evaluation. Data collected by CTs is shared with administrators and supports evaluation.</td>
</tr>
<tr>
<td>CTs support and coach veteran teachers</td>
<td>On a volunteer basis.</td>
</tr>
<tr>
<td>CTs evaluate veteran teachers who fail to meet minimum</td>
<td>No</td>
</tr>
<tr>
<td>standards of teaching</td>
<td></td>
</tr>
<tr>
<td>Length of time PTs stay in program</td>
<td>Probationary teachers receive one school year of support; veterans support varies.</td>
</tr>
<tr>
<td>Training for CTs and administrators</td>
<td>Similar with additional training for CTs</td>
</tr>
<tr>
<td>Contract language stipulating terms of PR</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional compensation for CTs</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs report to PAR panel</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs evaluations used for employment recommendations</td>
<td>No</td>
</tr>
</tbody>
</table>
First, participating teachers (PTs) are supported by consulting teachers, CTs, referred to as PARs in the case being studied, at a ratio no greater than 15:1. Second, PARs do not evaluate probationary teachers; rather, the observational data gathered over the course of the school year, including lessons co-observed with administrators, are shared with the administrator and used to support teacher evaluations. Third, while PARs do provide coaching support to veteran teachers upon request, they do not evaluate veteran teachers. Fourth, probationary teachers receive one school year of support, while support for veteran teachers varies based on the stated needs and goals of the teacher. Next, training for administrators and PARs, especially related to evaluation and coaching, are similar; however, PARs receive additional induction-specific training throughout the year. In terms of similarities, administrators and PARs attended the same training for the current evaluation rubric when it was introduced; since its introduction, both administrators and PARs are also able to and encouraged to access the follow-up and support materials available online. While not consistent, many administrators receive the same coaching training that is required training for PARs. Training on induction-specific topics for administrators, beyond these topics, has been limited; PARs, on the other hand, attend weekly team meetings that include focused attention on coaching and evaluation topics intended to support their work with teachers. Fifth, there is contract language that specifies PAR support for probationary teachers in the case being studied: teachers must participate in the PAR program in order to earn tenure in the district. Sixth, PARs receive additional compensation. Fifteen (15) additional duty days have been added to the contract for PARs to allow for training in the fall and preparatory work in the spring.
Finally, the work of PAR in the case being studied is supported by a 14-member oversight panel made up of district and union members.

**Induction components provided.** There are key differences between an orientation model of induction and what might be called a comprehensive induction program (TSP, 2009). Table 4.4 lists the induction components provided in the case being studied. Several of the components are similar to those found in the literature (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004), such as a program leader, mentor training, full-release mentors, and a designated funding source. Some differences are present, however, and will be discussed below.

**Table 4.4**

*Induction Components Provided in Case Being Studied*

<table>
<thead>
<tr>
<th>Component</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Leader</td>
<td>Yes</td>
</tr>
<tr>
<td>Mentor training</td>
<td>Yes</td>
</tr>
<tr>
<td>Full-release mentor</td>
<td>Yes</td>
</tr>
<tr>
<td>Funding source</td>
<td>District General Fund</td>
</tr>
</tbody>
</table>
| Professional development sessions | Several optional sessions are available. | None required outside of requirements of those for:  
1. Achievement of Tenure  
2. State Re-licensure  
3. Contractual building professional development  
4. Contractual district professional development |
| Lesson plan feedback           | Yes                         |
| Goal-setting                   | Yes                         |
| Study Groups                   | Optional                    |
| Observation of veteran teachers| Optional                    |
| Formative Assessment System    | No                          |
The case presented here differs from cases found in the literature in a key way: the optional nature of some components. For example, while professional development sessions are available, they are not required during this *particular* phase of the induction program. This is largely due to the fact that participating teachers are required to attend several hours of mandatory professional development in areas related to Achievement of Tenure, state re-licensure, and contractual building and district agreements. Teachers may elect to take the program’s online professional development courses as they work toward self-identified professional goals. Study groups and observation of veteran teachers are also optional components of the induction program being studied. In the case of study groups, as an example, a PAR may choose to bring together a small group of teachers for a book study, if teachers agree. While observations of veteran teachers are more widely experienced by teachers in this case and funds are allocated for guest teachers, this activity is optional and not all teachers choose to participate. Other components, which are not elective, however, are not common to other programs found in the literature.

Lesson plan feedback and goal-setting are required components of the case being studied that were not mentioned in the induction literature. In this case, teachers are required to submit lesson plans to their PARs on the first instructional day of the week for feedback. Lesson plan feedback was focused by teachers’ professional goals and administrators’ evaluation feedback. Similarly, goal-setting was facilitated by PARs and was focused by administrators’ evaluations.

Interview participants shared perspectives related to the components listed above and included coaching, lesson plan feedback, data collection, self-assessment, evaluation
and feedback, and goal-setting. More detailed descriptions of each component are presented with interview data.

**Summary.** The previous section provided an overview of the case being studied. The case being studied is unique for the fact that teachers participate in the induction program, regardless of previous achievement of tenure or years of experience. As a PAR program, it also stands apart as a second-year program, rather than a first-year program, like similar programs found in the literature (AFT, 2016) or the program after which it was modeled (Lawrence, 2003). It is, however, similar to other comprehensive programs in that multiple induction components are provided. In the next section, results related to evaluation data will be presented.

**Evaluation Data**

This section of the chapter reports findings related to teacher evaluation data. The presentation of teacher evaluation data to oversight boards, or PAR panels, both for individual teachers and for the group as a whole, is a common feature of PAR programs, as mentioned above. The overall teacher evaluation data, as well as the data related to recommendations for renewal and non-renewal, were presented to the PAR oversight board. Trend data was analyzed for the purpose of this case study. Overall teacher evaluation data will be reported first, followed by trends and recommendations for renewal and non-renewal.

**Overall teacher evaluation data.** As mentioned above, the results of administrator evaluation reports were presented to the PAR panel twice, once during the fall semester and once in the spring semester. Evaluations for 104 teachers (see Table 4.5) were presented in Spring 2018, as compared to 108 in Fall 2018, and 25 in Winter
2018. Resignations account for differences between the fall and spring numbers. For Winter 2018, the number of evaluations (25) was significantly lower due to the fact that PARs only join administrators for the Winter evaluation process if participating teachers have two or more “Below Standard” elements on their fall evaluations.

Table 4.5
**Overall Teacher Evaluation Data**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>28 (26%)</td>
<td>4 (16%)</td>
<td>56 (54%)</td>
</tr>
<tr>
<td>Developing</td>
<td>76 (70%)</td>
<td>16 (64%)</td>
<td>44 (42%)</td>
</tr>
<tr>
<td>Below Standard</td>
<td>4 (4%)</td>
<td>5 (20%)</td>
<td>4 (4%)</td>
</tr>
</tbody>
</table>

Performance level descriptors for the evaluation rubric include: Distinguished, Proficient, Developing, and Below Standard. None of the participating teachers in the case being studied were evaluated “Distinguished” overall. The number and percentage of teachers evaluated “Proficient” overall increased from fall to spring (see Table 4.5). Twenty-eight, or 26%, of the 108 teachers observed in the fall were evaluated as “Proficient” by their administrators; of the 104 observed in the spring, 56, or 54% were evaluated as “Proficient.” The number of teachers evaluated “Developing” declined from fall to spring. Of the 108 teachers observed in the fall, 76, or 70%, were evaluated as “Developing” by their administrator in the fall; 44, or 42%, were evaluated as “Developing” in the spring. The number and percentage of teachers evaluated “Below Standard” overall remained consistent from fall to spring. Four teachers, or 4%, were observed by their administrators and evaluated as “Below Standard” in both the fall and spring. Five teachers, or 20% of the 25 teachers who were observed during the winter evaluation cycle, were evaluated as “Below Standard” by their administrators. Although
the ratios are significantly different for the winter evaluation cycle, it is important to note that the number of teachers evaluated during this cycle were also significantly lower due to the previously policy.

**Recommendations for renewal and non-renewal.** Per teacher contract, the PAR panel reviews and votes on the recommendations for renewal and non-renewal of probationary teacher contracts. PAR panel recommendations are then forwarded to the superintendent, or a designee, for review before being sent to the School Board. To ensure that renewal outcomes are equitable, data are presented to the panel disaggregated by race (self-reported by the participating teacher) (see Table 4.6). Ninety (90) of the 104 participating teachers, or 87%, were recommended for renewal. Twenty-one (21) of the 23 teachers of color presented, or 91%, were recommended for renewal. Sixty-nine (69) of the 81 white teachers, or 85%, were recommended for renewal. Fourteen (14) of the 104 teachers presented were recommended for non-renewal. Two (2) of 23 teachers of color, or 9%, were recommended for non-renewal. Twelve (12) of 81 white teachers, or 15%, were recommended for non-renewal.

Table 4.6  
*Recommendations for Renewal and Non-renewal*

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Renewal</td>
<td>90/104</td>
<td>87%</td>
</tr>
<tr>
<td>Teachers of Color Renewal</td>
<td>21/23</td>
<td>91%</td>
</tr>
<tr>
<td>White Teachers Renewal</td>
<td>69/81</td>
<td>85%</td>
</tr>
<tr>
<td>Total Non-renewal</td>
<td>14/104</td>
<td>13%</td>
</tr>
<tr>
<td>Teachers of Color Non-renewal</td>
<td>2/23</td>
<td>9%</td>
</tr>
<tr>
<td>White Teachers Non-renewal</td>
<td>12/81</td>
<td>15%</td>
</tr>
</tbody>
</table>
**Evaluation data trends.** Results from secondary analysis of evaluation data are presented in the following section. As mentioned above, evaluation data was collected for the purpose of reporting to the oversight board. Although data related to teachers’ overall evaluation have been examined and reported previously, further examination of trends by element and comparisons between teachers who have been recommended for renewal and those who have been recommended for non-renewal have not been presented previously. Researchers (Ingersoll & Strong, 2011; Shockley et al., 2013) argued that there is limited evidence related to how induction programs impact instruction. Using the evaluation results gathered over time, analysis of these data seeks to describe patterns of instructional practice between teachers who are recommended for renewal and those who are recommended for non-renewal. To that end, this section begins with a description of the evaluation tool, followed by analysis of averages by performance indicator and by element.

The evaluation tool for the case being studied begins to describe instruction first by dividing the practice into three domains, including Elements of Effective Instruction, Environment for Learning, and Professional Responsibilities. Each domain is further divided into a total of 40 elements, such as Written Lesson Plans and Differentiation. Each element is further described, in some cases with several sub-elements. Descriptors across performance indicators generally measure frequency. Descriptors for “Below Standard” performance indicators, for example, may include adjectives such as no, few, or infrequently to indicate that the instructional practice supports few students or has been observed infrequently. Similarly, descriptors for “Proficient” performance indicators may include adjectives such as most or frequently to indicate that the instructional
practice supports most students or has been observed frequently. For the purposes of reporting to the PAR panel, PARs collected evaluation data by element and domain, using Google Forms. Original teacher evaluation documents are generated using Microsoft Excel and contain formulas that are not preserved in the data collection process. Rather, whole numbers were assigned to each performance indicator for each element and domain.

**Mean number elements by performance indicator.** Comparison of instructional practices between teachers recommended for renewal and non-renewal began with a comparison of the average number of elements by performance indicator. For this comparison, a sum of the elements evaluated at each performance indicator was calculated for each teacher. After this, the mean for each performance indicator was calculated.

As mentioned above, 89 teachers were recommended for renewal and 14 teachers were recommended for non-renewal. Results from these data indicated that teachers recommended for renewal had both a higher average number of “Proficient” elements and lower average number of “Developing” and “Below Standard” elements than teachers who were recommended for non-renewal (see Table 4.7).

Table 4.7  
*Mean Elements by Performance Indicator*

<table>
<thead>
<tr>
<th></th>
<th>Distinguished</th>
<th>Proficient</th>
<th>Developing</th>
<th>Below Standard</th>
</tr>
</thead>
</table>
| **Teachers Recommended for Renewal**  
(N: 89)                | \( \bar{x} = 0.92 \)  
\( SD = 2.1 \)  
Median = 0 | \( \bar{x} = 26.62 \)  
\( SD = 8.95 \)  
Median = 29 | \( \bar{x} = 9.63 \)  
\( SD = 8.68 \)  
Median = 7 | \( \bar{x} = 0.42 \)  
\( SD = 1.27 \)  
Median = 0 |
| **Teachers Recommended for Non-renewal**  
(N: 14)                | \( \bar{x} = 0.0 \)  
\( SD = 0.0 \)  
Median = 0 | \( \bar{x} = 8.21 \)  
\( SD = 9.08 \)  
Median = 5 | \( \bar{x} = 20.14 \)  
\( SD = 6.96 \)  
Median = 19 | \( \bar{x} = 8.71 \)  
\( SD = 6.92 \)  
Median = 8.5 |
For the 14 teachers recommended for non-renewal, the average number of elements evaluated “Proficient” in the spring was 8.21, an average of 20.14 elements were evaluated as “Developing”, and an average of 8.71 were evaluated as “Below Standard.” For the eighty-nine teachers recommended for renewal, an average of 26.62 of the forty total elements were evaluated as “Proficient” on the spring evaluation, an average of 9.63 elements were evaluated as “Developing”, and an average of 0.42 elements were evaluated as “Below Standard.” Figure 4.1 details the comparison.

Figure 4.1
*Mean Elements by Performance Indicator*

![Mean Elements by Performance Indicator](image)

*Non-Renewal*  *Renewal*

**Averages by element.** Table 4.8 presents findings from secondary analysis of evaluation data by element. For this comparison, performance indicators were converted to quantities. “Distinguished” performance indicators were converted to the value 4; “Proficient” performance indicators were converted to the value 3; “Developing” performance indicators were converted to the value 2; and “Below Standard”
performance indicators were converted to the value 1. Average values were calculated from these conversions for each of the elements.

Table 4.8
“Below Standard” Elements - Teachers Recommended for Non-renewal.

<table>
<thead>
<tr>
<th>Environment for Learning - Expectations for paras</th>
<th>Teachers Recommended for Non-renewal (N: 14)</th>
<th>Teachers Recommended for Renewal (N: 89)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements of Effective Instruction - Co-teaching</td>
<td>1.00</td>
<td>2.57</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Differentiation</td>
<td>1.36</td>
<td>2.43</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Assessment of student learning</td>
<td>1.50</td>
<td>2.65</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Questioning and discussion</td>
<td>1.50</td>
<td>2.55</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Purposeful talk</td>
<td>1.57</td>
<td>2.29</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Instructional techniques</td>
<td>1.64</td>
<td>2.63</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Engaging students in learning</td>
<td>1.71</td>
<td>2.72</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Lesson closure</td>
<td>1.71</td>
<td>2.47</td>
</tr>
<tr>
<td>Professional responsibilities - Feedback</td>
<td>1.79</td>
<td>2.85</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Teacher's use of student work</td>
<td>1.79</td>
<td>2.80</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Teacher modeling</td>
<td>1.79</td>
<td>2.74</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Academic feedback</td>
<td>1.79</td>
<td>2.64</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Prior learning</td>
<td>1.86</td>
<td>2.88</td>
</tr>
<tr>
<td>Elements of Effective Instruction - High academic expectations</td>
<td>1.86</td>
<td>2.82</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Rubrics/criteria charts</td>
<td>1.86</td>
<td>2.48</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Instructional groups</td>
<td>1.86</td>
<td>2.45</td>
</tr>
<tr>
<td>Environment for Learning - Behavior monitoring</td>
<td>1.93</td>
<td>2.84</td>
</tr>
<tr>
<td>Elements of Effective Instruction - Content delivery</td>
<td>1.93</td>
<td>2.75</td>
</tr>
</tbody>
</table>
A number of patterns emerged as the averages by element were analyzed (see Figure 4.2). Standing out among them was that the scores for teachers recommended for non-renewal resulted in 19/40 elements averaging scores “Below Standard.” Further, 16 of the 19 elements were in the elements of effective instruction domain and included a variety of teaching behaviors, such as differentiation, teacher modeling, and academic feedback. It is noteworthy that, while each of these elements were “Below Standard” for teachers who were recommended for non-renewal, the average scores for teachers recommended for renewal were “Developing” for 19/19 of these elements. Some of these teaching behaviors might be considered more difficult or advance, as referenced in the literature (Blömeke et al., 2015; Maulana, Helms-Lorenz, & van de Grift, 2015), and will be discussed in more detail in Chapter Five.
Figure 4.2  
“Below Standard” Elements - Teachers Recommended for Non-renewal.

<table>
<thead>
<tr>
<th>Environment for Learning</th>
<th>Spring Non-Renewals</th>
<th>Spring Renewals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations for Paras</td>
<td>0.93</td>
<td>2.8</td>
</tr>
<tr>
<td>Elements of Effective Instruction Co-Teaching</td>
<td>1</td>
<td>2.57</td>
</tr>
<tr>
<td>Elements of Effective Instruction Differentiation</td>
<td>1.36</td>
<td>2.43</td>
</tr>
<tr>
<td>Elements of Effective Instruction Questioning and discussion</td>
<td>1.5</td>
<td>2.65</td>
</tr>
<tr>
<td>Elements of Effective Instruction Assessment of student learning</td>
<td>1.5</td>
<td>2.55</td>
</tr>
<tr>
<td>Elements of Effective Instruction Purposeful talk</td>
<td>1.57</td>
<td>2.29</td>
</tr>
<tr>
<td>Elements of Effective Instruction Instructional techniques</td>
<td>1.64</td>
<td>2.63</td>
</tr>
<tr>
<td>Elements of Effective Instruction Engaging students in learning</td>
<td>1.71</td>
<td>2.72</td>
</tr>
<tr>
<td>Elements of Effective Instruction Lesson closure</td>
<td>1.71</td>
<td>2.47</td>
</tr>
<tr>
<td>Professional responsibilities Feedback</td>
<td>1.79</td>
<td>2.85</td>
</tr>
<tr>
<td>Elements of Effective Instruction Teacher's use of student work</td>
<td>1.79</td>
<td>2.8</td>
</tr>
<tr>
<td>Elements of Effective Instruction Teacher modeling</td>
<td>1.79</td>
<td>2.74</td>
</tr>
<tr>
<td>Elements of Effective Instruction Academic feedback</td>
<td>1.79</td>
<td>2.64</td>
</tr>
<tr>
<td>Elements of Effective Instruction Prior learning</td>
<td>1.86</td>
<td>2.88</td>
</tr>
<tr>
<td>Elements of Effective Instruction High academic expectations</td>
<td>1.86</td>
<td>2.82</td>
</tr>
<tr>
<td>Elements of Effective Instruction Rubrics/criteria charts</td>
<td>1.86</td>
<td>2.48</td>
</tr>
<tr>
<td>Elements of Effective Instruction Instructional groups</td>
<td>1.86</td>
<td>2.45</td>
</tr>
<tr>
<td>Environment for Learning Behavior monitoring</td>
<td>1.93</td>
<td>2.84</td>
</tr>
<tr>
<td>Elements of Effective Instruction Content delivery</td>
<td>1.93</td>
<td>2.75</td>
</tr>
</tbody>
</table>

**Summary.** Findings related to evaluation data were presented in this section of the chapter. With the exception of trend data, which underwent secondary analysis for the purpose of this case study, these data were presented to PAR oversight board. The data represent the district’s retention efforts, in terms of in terms of quality, quantity, and equitable racial outcomes in the case begin studied. Evaluation results suggest a more detailed description of the instructional practices required for retention. In the next
section, findings related to interview data, which focus on teachers’ perceptions of the induction supports, will be presented.

**Interview Data**

This section of the chapter reports the interview findings from the case being studied. An overview of the interview methodology, including participant selection, interview procedures, description of induction components addressed in the interview, and coding methodology, is provided to begin the section. Next, interview findings are described narratively and represented graphically. The findings have been organized to align with the interview guide, according to interview topics (see Appendix C). The organization of the interview and findings was purposefully chosen as it roughly aligns with the manner or flow in which the participants experienced them in the case. The section closes with a summary of the findings. The results are presented narratively with graphic representations and excerpts to highlight specific points. Participants are identified by number to maintain anonymity.

**Participant selection.** Seven teachers in the case being studied participated in semi-structured interviews related to each of the components of the PAR program, including coaching, lesson plan feedback, self-assessment, data collection, evaluation and feedback, and goal-setting. Of the 108 fall participants, 86 were found in district records and sent an informational recruitment email (see Appendix D) on December 18, 2018. Between December 18, 2018 and January 7, 2019, 22 participants responded to the recruitment email. Between December 22 and January 15, 2019, interested participants were emailed (see Appendix E) regarding the maximum purposive sampling (McMillan & Schumacher, 2010) strategy that would be used to select study participants.
The sampling process resulted in the selection of participants with a range of demographic characteristics. From the 22 respondents eight participants were selected using available data related to content, grade level, self-identified race, and gender in order to highlight various experiences and perspectives related to the case being studied (McMillan & Schumacher, 2010). Selections were not made to represent ratios in these areas present in the population as a whole (McMillan & Schumacher, 2010). Rather, selections were made to ensure that a wide range of participant perspectives were present. For example, participants teach at the early childhood to high school levels, English Language Learners, Special Education, as well as various content areas. Gender and self-identified racial demographic information also informed the selection process, such that participants were selected to include male and female participants, as well as participants from each of the self-identified categories present for those who expressed interest in participating in the study. Participants were notified of their selection between January 16, 2019 and February 2, 2019 by email, which included the Institutional Review Board-approved consent form.

**Interview procedures.** Semi-structured interview methodology was chosen for the case being studied. The selection of the interview questions were guided by the purpose of the study (*how* teachers experience induction supports, and *whether* those experiences are supportive) and the theoretical framework suggested in the literature (Herzberg, 1968b; Shockley et al., 2013). Specifically, and as mentioned above, participants were asked to share their experiences related to each of the PAR components, similar to the interview style of Herzberg (1968b).
Interviews took place between January 25, 2019 and February 27, 2019. A particularly difficult winter season resulted in several rescheduled appointments; in fact, two participants opted for phone interviews to aid in the rescheduling process. An interview guide was used for each interview and shared with each participant (see Appendix C). The duration of the interviews ranged from just over one hour to just under 30 minutes, with most of the interviews lasting just over 30 minutes. With the exception of one technical failure, the battery in the audio recorder failed after being exposed to the cold, that resulted in an interview not being completely recorded, each of the interviews was recorded and then professionally transcribed. Notes were also taken during each interview to support analysis and coding.

**Description of induction components.** Participants were asked to describe their experiences with the induction components, including coaching, lesson plan feedback, data collection, self-assessment, evaluation and feedback, and goal-setting (see Table 4.4). The presentation of the induction components in the interview guide follow the general pattern participants experienced them. Specifically, participants generally experienced coaching first, followed by lesson plan feedback, data collection, self-assessment, evaluation and feedback, and goal-setting. Participants experienced coaching, lesson plan feedback, and data collection in regular cycles, with coaching and data collection occurring on a bi-weekly basis. Lesson plan feedback occurred every week. Self-assessments, evaluation and feedback, and goal-setting were also experienced cyclically, either twice or three times depending on PAR participation in the evaluation cycle, which will be explained in greater detail with the evaluation data. Each of the induction components will be described in more detail below, beginning with coaching.
**Coaching.** The coaching approach was similar to the transformative approach described in the literature (Achinstein & Athanases, 2005; Wang & Odell, 2002). PARs often used reflective (see Appendix I) and planning (see Appendix J) coaching maps to support conversation with PTs. As much as possible, PARs and PTs are paired with respect to grade-level and content experience. This is especially true for special education and English Language teachers. PARs and PTs meet on a regular basis, generally for one hour or class period every other week. As much as possible, the meeting schedule is based on PTs’ preferences and availability. While the schedule is flexible, PARs and PTs meet for a minimum of two hours per month.

**Lesson plan feedback.** Lesson plan requirements for PTs are outlined in the PAR Handbook. PTs are required to share lesson plans with PARs on a weekly basis, by 8 A.M. of the first instructional day of the week. Building administrators determine the format of lesson plans, included the formats present in district curriculum guides. Lesson plan requirements are also informed by proficient descriptors on the evaluation document and the teacher contract, including reference to standards, description of instructional strategies, methods of assessment, and differentiation strategies.

**Data collection.** A variety of data may be selected to support coaching conversations and goal-setting and include classroom observation, video recording, and analysis of student work. Data collection for PTs most often takes the form of classroom observation and scripting. In these cases, PARs observe and script PTs lessons. Lesson scripts are shared with PTs and include as much data as possible, such as the number of students, teacher dialogue, student dialogue, written instructions, movement within the
environment, student and teacher actions, among other data. Data collection also occurs to support evaluation and feedback.

**Self-assessment.** PTs completed self-assessments using the teacher evaluation rubric prior to each of the evaluations during the year. PTs shared their self-assessment responses with their PAR and administrator. Use of self-assessments varied significantly: some administrators regularly referenced the self-assessment during feedback meetings after evaluations; other administrators did not regularly reference the self-assessments.

**Evaluation and feedback.** Per state law (MINN. STAT. 122A.41, 2018), probationary teachers receive three formal evaluations by a licensed administrator. For teachers receiving PAR support, PARs join administrators for the fall and spring evaluations. If PTs have two or more “Below Standard” elements on the fall evaluation, PARs also join administrators for the winter evaluation. The evaluation process includes a pre-observation meeting in the fall. During this meeting, PTs review lesson plans with administrators, who offer feedback. PARs support this meeting by taking notes and offering feedback on lesson plan revision if required. Observations for fall evaluations are announced and many PTs are able to choose the day, time, and class period for the fall evaluations. After the fall observation, administrators and PARs meet to complete the evaluation rubric. Data collected by PARs to this point inform the completion of the rubric, so data from previous meetings and observations is accessed at this time.

Feedback, based on the evaluation rubric, is provided by administrators. PARs support this meeting as well, taking notes to support goal-setting meetings. Winter and Spring evaluation cycles are similar, with the exception that the observations are generally unannounced and, therefore, do not include a pre-observation meeting.
**Goal-setting.** Goal-setting is informed by the evaluation feedback provided by administrators. Following the evaluation and feedback meeting, PARs and PTs meet to review the evaluation feedback. PARs guide reflection on the feedback and support creation of professional goals to incorporate suggestions into their practice. In this way, goal setting is repeated after each evaluation.

As mentioned above, interview questions collected participants’ experiences with each of the induction components. Interviews were recorded, transcribed and coded using constant comparison methodology. Description of coding methodology follows.

**Coding methodology.** After transcription, each interview was read and initially coded, followed by a second reading and extraction of excerpts (Merriam, 1998 p. 181). Initial codes, such as lack of organizational support and self-efficacy, arose from “bits of data that [I found] interesting potentially relevant, or important to [my] study” (Merriam, 1998, p. 181) using constant comparison methodology (Merriam, 1998, p. 159). After initial coding, selected excerpts were moved into a spreadsheet, along with the initial codes, and sorted into categories.

As Brinkmann and Kvale (2015) suggested, categorization can arise from a number of sources including theory. Selection of categories was based on the secondary research question: *What components of induction do teachers perceive are supportive?* and Herzberg’s (1968b) satisfaction-dissatisfaction continuum. See Appendix B for a graphic of Herzberg’s (1968b) Two-Factor Motivation Theory. Categories were modified to include supportive, not supportive, and neither. Further following the example of Herzberg (1968b), distinctions between supportive and not supportive were drawn using the language of the participant (Brinkmann & Kvale, 2015). For example, the use of
negatives (not or no), expression of a clear other preference (“X would have been better”), or expression of negative emotion (frustration) were indicators of experiences that participants did not find supportive. On the other hand, the use of positive (“X was my favorite part”) or positive emotion (enjoy) were indicators of experiences that participants found supportive.

Following the guidance of McMillan and Schumacher (2010), after categorization and initial coding, I looked for patterns among all of the initial codes across the induction components referenced in the interviews (p. 378). An iterative process of analysis and review of the literature resulted in several factors that participants referenced as they shared their experiences with the induction components being studied (see Table 4.9). In the analysis of participant responses, Herzberg (1968b) defined what he called “first-level factors” as “objective element[s] of the situation in which the respondent finds a source for his good or bad feelings about the job” (p. 193). Table 4.9 lists factors that participants weigh as they determine whether an induction component is supportive or not supportive.

Table 4.9
Support Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>A factor related to the criteria a participant used to judge value – e.g., whether something was done well or was worth doing.</td>
<td>I'm already conflicted - SET is not critical. There's no critical aspect to it. Formulaic</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>A factor related to and based on relationships.</td>
<td>She could help fill in the EL gaps that my principal didn't have because of the EL thing. It helped build a relationship with my admin.</td>
</tr>
<tr>
<td>Outcome</td>
<td>A factor related to outcomes of the program component.</td>
<td>It was always about what I wanted to improve in as opposed to her telling me, you know, you need to do this, you need to do that.</td>
</tr>
<tr>
<td>Philosophy/Theory</td>
<td>A factor related to the participant’s personal philosophy of learning or education and/or a theory of learning supported or advocated by the case being studied.</td>
<td>With my mentor we could talk and have lunch and it wasn't always so much about, like, ticking boxes and getting forms filled out.</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Program goals</td>
<td>A factor related to program goals.</td>
<td>That's one thing that I really, as a professional, wanted to continue to grow is my ability to ask the questions to students to lead them to the right answers or at least to start building their own questioning skills. So, really seeing that out in front of me and having it laid out was really helpful.</td>
</tr>
<tr>
<td>Resource allocation</td>
<td>A factor related to resource allocation – e.g., time.</td>
<td>Seems like a waste of time - I didn't feel like I needed this.</td>
</tr>
</tbody>
</table>

**Coaching.** Each of the teachers spoke in the greatest detail and at greatest length about their experiences with coaching. Similar in some ways to mentoring, coaching was the primary work of PARs. In the case being studied, PARs take a constructivist (Richter et al., 2013) and transformative (Wang & Odell, 2002) mentoring stance. For the purpose of this part of the interview, participants were asked to limit their responses to experiences related to this work. This is the component that has the highest ratio of factors categorized as not supportive as well: of the 47 selected excerpts, 28 included factors that were categorized as not supportive and 19 as supportive (see Figure 4.1). None of the factors from this component were categorized as neither. The results for not supportive, which were greatest in number, will be presented first, followed by results that were categorized as supportive.
Figure 4.3
Coaching Results

Not supportive. Four of the seven participants perceived coaching as not supportive, meaning that a greater number of their reflections were categorized as not supportive. When participants described experiences in ways that were coded as not supportive, the most common factor they cited was related to educational philosophy or theory. Specifically, participants shared factors related to educational philosophy or theory in 11 of the 28 these excerpts. Of the remaining 17 excerpts, five described factors related to the various criteria the participants used to assess their teaching or the coaching relationship. Four excerpts described factors to interpersonal relationships with their PAR coaches, three were related to program goals, three were related to resource allocation, and two were related to various outcomes.

Findings in which philosophy or theory was factor for a participant perceiving coaching as non-supportive revealed mismatches around coaching and instructional
strategies. For example, Participant Seven did not find the accountability requirements of the coaching relationship supportive: “With my mentor we could talk and have lunch and it wasn't always so much about, like, ticking boxes and getting forms filled out.” For other participants, content mismatches reduced the credibility. For example, Participant Four shared that coaching feedback was not well-aligned with what they believed were also important instructional objectives:

I think in music it's really hard because what, well, we may not have closure in this particular class because we start with that same song next time, or it's a concept that needs to be internalized so there's no way to, like, close the lesson. . . . When talking about a beat, that needs to be internally something they have to get and conceive. But it’s like, sometimes I need to let them go home, think about it, come back and then we retest the next time.

These findings suggest that participants in the case being studied prefer a more collaborative approach, respective of their experience and judgment (Bressman, 2018).

Results also suggest that interpersonal relationships are an important factor of support. Specifically, some participants did not feel that they connected with their PARs. According to Sowell (2017) trust in a mentoring relationship is foundational and necessary for the difficult discussions that occur as teachers learn and grow. In addition to lack of interpersonal relationships, two teachers interviewed shared that they did not have a coach in their content area and that posed difficulties in terms of instructional strategies and content beliefs.

It was a little bit more difficult because [PAR] wasn't musically based, so all of [PAR’s]—all of [PARs] input and critiques were based off of, like, my teaching
style, but not necessarily my content, if that makes sense. So, sometimes it was helpful and sometimes it was not. (Participant Four)

Content mismatches and beliefs also created difficulties with getting the objectives of the program completed, which to one teacher created a feeling of being evaluated rather than being supported. In this instance, a participant reference getting forms filled out, which refers to one of the coaching maps (see Appendices I and J) PARs use to guide conversations.

So, my experience with coaching with [PAR], my PAR coach, didn't always feel like coaching. It felt more like evaluating than like, here's what I see is going well; here's something that's not going well and here's a strategy to practice to make it better. (Participant Five)

One teacher also noted that additional coaching around Culturally Responsive Teaching practices would have been more helpful and that there was a clear mismatch in terms of expectations related to the outcomes of the program.

Seems like a waste of time - I didn't feel like I needed this. I'm not saying that there's nothing I could learn. I would never say there's no room for development. It's just that whatever the program was designed to do it - the areas that I wanted to spend my energy on would have taken probably a coach with more experience in those areas; like cultural awareness; or culturally relevant curriculum, and stuff like that. (Participant One)

Achinstein and Athanases (2005) had similar findings, which will be discussed in more detail in Chapter Five.

Supportive. Three of the seven teachers interviewed perceived coaching as largely
supportive. Within this category, interpersonal relationships and the participants’
interpretation of program goals were factors of support. Of the remaining nine excerpts,
participants shared factors related to outcomes of coaching, their philosophy or theory of
coaching or teaching, and criteria for coaching as factors of support.

Common among the three are shared examples of positive interpersonal
communication and beliefs that their PAR coaches valued their interests.

I felt like it was really driven by what I identified I wanted to work on. Like, I
thought there would be a lot more specific feedback, like, you need to work on X, Y, and Z. And it was very much like, how did you feel this went? Like, what are
you interested in thinking about or doing? (Participant Five).

Similarly, LoCascio et al. (2016) concluded that meetings guided by teacher-identified
needs are more effective.

Also common among the factors of support was that the participants liked their
PARs and valued the coaching philosophy. Specifically, two of the three teachers
responded positively to the program process of reflection.

But, I mean, honestly, just the experience of prepping a lesson, teaching a lesson,
and then having that word-for-word this is what you said, this is what your
students said, this is their response, this is how you followed up with them, having
that to look over was really helpful in kind of honing in my questioning skills.
That's one thing that I really, as a professional, wanted to continue to grow is my
ability to ask the questions to students to lead them to the right answers or at least
to start building their own questioning skills. So, really seeing that out in front of
me and having it laid out was really helpful. (Participant Two)
These results support findings from the literature (Giles et al., 2013; Sowell, 2017) that emphasis the importance of trusting mentoring relationships for new teachers as the work toward enriching their teaching skills.

**Summary.** This section of the interview included data related to PTs experiences with coaching. Using coding method described above, 47 units of data were extracted from the interview transcripts. Twenty-eight of the 47 units were coded as not supportive, while the remaining 19 were coded as supportive. Participants offered a variety of factors as they shared their experiences. Philosophical differences was most often listed as a factor when coaching was perceived to be not supportive. Interpersonal relationships was most often listed as a factor when coaching was perceived to be supportive. PTs perceptions of lesson plan feedback will be described next.

**Lesson plan feedback.** Participants were divided in their perceptions related to lesson plan feedback. Of the 38 excerpts coded for this component, 22 were coded as supportive, with the other 16 coded not supportive (see Figure 4.2).
None of the excerpts from this component were categorized as neither. The results for supportive, which were greater in number, will be presented first.

**Supportive.** Participants shared criteria for supportive lesson plans in eight of the twenty-two excerpts. The criteria for support in this area fell into three main areas: participants felt their lesson plans improved, the questioning style of the feedback supported reflection, and the instructional focus of the feedback was supportive.

Because that was not required by my teacher program like the you know, the ones that you are, I guess if I'm talking about a lesson plan it's, like, the ones that all of the different ways you're going to differentiate and here’s exactly how you’re going to do it, and here’s where your choices come from, pedagogy, and I'm doing this because this person said that this was the best thing to do (Participant Seven).

Some participants had not been required to write formal lesson plans previously; and they found, after completing the process, that writing lesson plans and receiving feedback was a helpful professional practice.
Similarly, participants shared the perspective that the outcomes of lesson plan writing and feedback were supportive when the feedback was specific and focused on instructional strategies.

It was helpful practice to make sure that I was writing things out in a cohesive manner that I could, you know, hand to my partner. Or, this year we're going back and teaching some things and we can go right back and there was—this was our script for it. (Participant Two)

**Not supportive.** Participants shared criteria for lesson plan feedback being perceived as not supportive in five of sixteen excerpts. In each of these excerpts, participants explained that they received general, or feedback that was sent to all of the teachers receiving support from their PAR, which they did not find supportive. A common thread among these perspectives was that lesson plan feedback began specific and then transitioned to more general feedback, which participants did not find valuable.

Emotional responses, such as frustration, were also shared, which participants connected to interpersonal and resource allocation factors. These emotional responses largely resulted from lesson plan feedback practices that the teachers viewed as too general, too granular, or contradicted directives from other staff.

I mean, as a teacher there's a billion things to do all the time anyway. And then going through [lesson plan feedback] and so—I felt like if there was a big question [PAR] had it would be really helpful to go back and kind of look through what I want to address with that. But if it got to kind of nit-picky things, it's like, I have to keep going. (Participant Two)
While not directly connected to lesson plan feedback, these findings are aligned with those of Ronfeldt and McQueen (2017), who found that supportive administrative communication is a negative predictor of teacher attrition.

**Summary.** This section of the interview included data related to PTs experiences with lesson plan feedback. Using coding method described above, 38 units of data were extracted from the interview transcripts. Twenty-two of the 38 units were coded as supportive, while the remaining 16 were coded as not supportive. Participants who perceived lesson plan feedback as supportive shared the criteria they used to judge the value of lesson plan feedback more often than other factors. Participants who perceived lesson plan feedback as not supportive shared the criteria they used to judge the value of lesson plan feedback as well as resource allocation pressures more often than other factors. PTs perceptions of data collection will be described next.

**Data collection.** Data collection, as it related to the case being studied, was almost exclusively interpreted by the participants as classroom observation. Although all of the participants were offered opportunities for other methods of data collection, such as video recording and prompted during the interview, each of the seven participants shared perspectives and experiences related to classroom observation. Thirty-four of 37 excerpts were coded as supportive and the remaining four were coded as neither (see Figure 4.5).
In these cases, the participants shared their experiences of classroom observation during the program, which were presented as matter-of-fact, rather than supportive or not supportive. For example, Participant One shared, “I definitely had my three observations.” In this regard, Participant One was referring to the statutory (MINN. STAT. 122A.41, 2018) requirement, in addition to the support component referenced in the interview.

**Supportive**. Participants spoke to a variety of criteria perceived as supportive when they shared experiences related to data collection. For example, data collection provided information that participants were not able to see while they were teaching. And when we would sit down for a post-observation meeting, or conference. It was always good because my coach usually had pretty good positive feedback, helpful feedback, that sometimes, you know, like I said earlier, you don't see
sometimes what happens, like, 100% in your class. So, and [PAR] would be, like, in a place where [PAR] would always like show the whole class, you know. So, it was very helpful. (Participant Six)

In an equal number of excerpts, eight, participants shared that the philosophical lens of data collection was a factor in their perception of support.

I use popsicle sticks. I use, you know, group talk, and group think, and what does your table think versus, like, what do you individually think. So, I feel like data collection for me, was super beneficial in helping me recognize shortcomings and come up with solutions. So, for me that was probably the most useful part.

(Participant Seven)

Participants also spoke to this component as being the one that they looked forward to or liked.

One of my favorite parts of PAR... And so, having that script and having, like, noticing of which students are talking, and that was really helpful of, like, this student talked six times that this student talked once, and what are you doing to questions this student, or this group of students to help kind of have that equilibrium of student voice in the classroom. That was really, really helpful.

(Participant Two)

Likewise, emotional responses from this component were largely a result of factors related to outcomes of data collection and interpersonal relationships, or both.

I like being observed in my classroom. I like having admin come in and I liked having PAR to come in too kind of—because I'm proud of the work that I do. . . So, getting observed and getting notes and getting feedback is a big part of it. So,
it was always interesting to go through the data and see what [PAR] saw.

( Participant Seven )

Teachers’ responses related to data collection, which all focused on observation, seemed to align with the prevailing value of classroom observation as a means for evaluating instruction. Implications for future study and practice regarding classroom observation will be discussed in more detail in Chapter Five.

**Summary.** This section of the interview included data related to PTs’ experiences with data collection. Thirty-seven units of data were analyzed from PTs responses to this interview question. In 34 of the 37 units PTs shared perceptions that data collection, classroom observation and scripting specifically, was supportive. The three units of data that were categorized as neither focused on matter-of-fact retelling of observation details. None of the 37 units of data contained negative use of language common to those in the not supportive category. For that reason, none of the units of data were categorized as not supportive. PTs’ perceptions of self-assessment will be described next.

**Self-assessment.** Participants’ responses related to the self-assessment were almost equally divided between supportive and not supportive, with six excerpts coded as neither supportive or not supportive. Overall, 35 excerpts related to self-assessments were coded, of these 15 were coded supportive, 14 were coded not supportive, with the remaining six units of data coded as neither (see Figure 4.6).
Like data collection, participants in these instances, shared accounts of the self-assessment process that were more matter-of-fact than an indication of support. For example, although Participant One knew that they completed the self-assessments, they did not remember what they put on the assessment. The results for supportive, which are greater in number, will be presented first.

**Supportive.** The factors participants shared for finding self-assessment supportive were evenly split among criteria for judging value, interpersonal relationships, the outcome of the activity, philosophical agreement with self-assessment, and the goal of the program being studied. In terms of criteria, three of the participants shared familiarity with the process and value of self-assessment. As Participant Six said, “So, I was always cautious, you know, trying to be truthful and honest. And every time I had to do a self-assessment, I felt confident. You know, I never had doubts. So, whenever I had to do one, I felt good.” Similarly, the self-assessment provided confirmation about what the
participant already understood to be areas of strength and growth, “It was just a lot of the things that I identified were confirmed that those are the things that I should be working on” (Participant Two).

In addition to seeing their own professional growth, participants responses revealed a sense of support from the process of documented growth from fall to spring. “But it was nice to be able to go through it and see, like, oh, wow, you have made improvements in these areas. At least I feel like I made improvements in these areas” (Participant Four). For some participants, documentation of professional growth in this way was an expected goal of the program that felt supportive.

Not supportive. Participants who felt that self-assessment was not supportive focused on the criteria for self-assessment and the difficulty they had assessing themselves accurately with the evaluation tool. For some this was due to the tool itself, for others, there was a sense of habitually self-assessing themselves low.

The self-assessment, the sheet, was sometimes bother[some] because I usually – like, I don't feel like I'm a four but I’m definitely not a 3, I’m like 3.5, and you could never, like, write that down on your sheet and show, like, I'm not proficient here but I'm not developing either. I’m, like, somewhere in between. So, that was frustrating for me, just going through it. (Participant Four)

Participants questioned the outcome of the self-assessment, in addition to sharing concerns about the imprecision of the self-assessment tool, both of which created philosophical conflicts for some participants. Specifically, one participant shared that less formal routines of self-assessment better supported growth in professional practice than the formal practice in the case being studied.
I've always had a hard time with that document but that's just me, and that’s partially because I self-assess every day. I self-assess after every activity that I have. Like, okay, that didn't work and we need to fix that for next time. And I make a mental note, or change something when I do it next time. (Participant Four)

The literature related to “leavers” and “stayers” (Burke et al., 2015; Rinke & Mawhinney, 2017) was particularly salient related to these findings. Stayers, according to Burke et al. (2015), do not, necessarily, need to have their strengths affirmed, while leavers tend to be the teachers who need affirmations. Rinke and Mawhinney (2017) on the other hand, argued that “invested leavers” stayed through the difficult early years, only to leave later because of philosophical disagreement. Connections to these findings and implications for practice will be discussed at greater length in Chapter Five.

**Summary.** This section of the interview included data related to PTs’ experiences with self-assessment. Thirty-five units of data were analyzed related to PTs’ experiences with self-assessment. Of these, fifteen were categorized as supportive, fourteen were categorized as not supportive, and the remaining six were categorized as neither for their matter-of-fact retelling of the process of self-evaluation. PTs’ criteria for judging the value of self-assessment was an equal factor for perceptions of support and not. Philosophical beliefs were also shared as a factor for the perception of self-assessment as supportive. PTs also often shared that self-assessment was not supportive due relative to their philosophical beliefs. PTs’ perceptions of evaluation and feedback will be described next.
**Evaluation and feedback.** Participants shared more responses that were coded supportive than not related to their experiences with evaluation and feedback: nineteen of 29 interview excerpts were coded as supportive. Of the remaining 10 excerpts, three were coded as neither and seven were coded as not supportive (see Figure 4.7).

**Figure 4.7**
*Evaluation and Feedback Results*

For this component, the excerpts coded as neither supportive or not supportive were those shared for the purpose of providing context to the lesson that was evaluated. For example, Participant One shared an overview of the feedback they received: “At every observation I would have, you know, maybe, like, three or four distinguished in the same areas, about 40% proficient or - and then except for the last one, which was more proficient, and than developing.” The results for supportive, which are greater in number, will be presented first.

**Supportive.** A variety of factors influenced participants’ perceptions related to evaluation and feedback. Five of seven participants shared factors related to overarching program goals of collaborative support and professional growth. For example, the
evaluation process was interconnected with stronger and more trusting relationships with their administrators, which they also perceived as supportive. “I like the triangle conversations. She could help fill in the EL gaps that my principal didn't have because of the EL thing. It helped build a relationship with my admin” (Participant Three).

Four of the seven participants shared factors related to outcomes of evaluation and feedback. Participants shared that feedback related to strengths were important. In fact, Participant Six shared that their feedback included “a lot of affirmations” in addition to areas of growth, which were perceived as supportive. The feedback conversation after the observation that felt particularly supportive, because it created space for the formal document to be revised.

[PAR] went back and changed it to - that it wasn't that I didn't know what was going on. So, it's just that I thought that was fair that, you know, [PAR] always said that, you know if there's anything on here that you see that you want to comment on you can. (Participant One)

Participants shared factors related to criteria for judging the value of the evaluation and feedback and interpersonal relationships in the remaining excerpts. For three of the seven participants, important criteria for evaluation and feedback include understanding what a typical day looks like (Participant Four), providing specific feedback (Participant Five), and acknowledgement of strengths and areas of growth (Participant Six). Four of seven participants shared how interpersonal relationships impacted their perceptions of evaluation and feedback. Participant Seven, for example, held their administrators in very high regard: “I really respect by admin and feel like
they’re good guys and they have my best interest at heart.” These findings are similar to those of Player et al. (2017) and will be discussed in greater detail in Chapter Five.

Not supportive. Participants’ perceptions of evaluation and feedback that were perceived as not supportive were related to three factors: criteria for judging effective evaluation, interpersonal relationships, and the participant’s philosophical beliefs about teaching and learning. In terms of criteria for evaluation and feedback, one participant did not like the process of unannounced observations in the winter and spring and found them “nerve-wracking” (Participant Three). Accordingly, the unannounced nature of the evaluations had a negative impact on interpersonal relationships.

Philosophical disagreement with the criteria for evaluation and feedback is the final factor participants found not supportive. These excerpts highlighted points of specific disagreement with the instructional strategies articulated as best practice and called out in feedback from their administrator. For example, Participant One shared disagreement with feedback related to his response to a student wearing headphones during class:

He [student] was working independently. If he had his headphones on, like, I can engage in that battle, but that is going to change our dynamic and he gets his work done. And so, I don't really have a problem. If he wants to listen to the headphones in between, like, on independent work, if that works for him, which obviously it does, if you look at his grades, then I'm going to let him do it.

These results are similar to those of Player et al. (2017) and suggest that principal feedback and the evaluation process may impact teacher attrition. These results will be discussed in greater detail in Chapter Five.
Summary. This section of the interview included data related to PTs experiences with evaluation and feedback. Twenty-nine units of data were analyzed for this component. Of the twenty-nine units, nineteen were categorized as supportive, seven were categorized as not supportive, and the remaining three were categorized as neither. Units categorized as neither, like those for other interview components, were categorized due to the matter-of-fact nature of their experiences. Factors related to PAR goals and criteria for judging evaluation and feedback were most often shared as supportive. The factors for perceptions that evaluation was not supportive were varied and included interpersonal relationships, criteria for judging evaluation and feedback, and philosophical differences with the evaluation and feedback approach. PTs perceptions of goal setting will be described next.

Goal setting. The twenty-four excerpts shared by participants related to goal-setting were almost equally categorized as supportive and not supportive, with only one excerpt coded as neither (see Figure 4.8).
Similar to other components, the excerpt coded neither was matter of fact and for the purpose of explaining how goal setting informed classroom observation. Twelve of the 24 excerpts were coded as supportive, slightly more than the eleven not supportive excerpts, and will be presented first.

Supportive. A variety of factors contributed to participants’ perceptions that goal setting was supportive. Among them, three named the connection between program goals as an important factor and another three named outcomes of goal setting as supportive. Participants in the program being studied were expected to set goals based on evaluation feedback from their administrators. While PARs support the process, participants choose the focus of the goals based on their perceived needs. For some, the flexibility to choose or repeat the focus of goals was perceived as supportive.
In regard to that, yeah, I think the goals that we set we accomplish them. Of course, I feel that, you know, whenever you set a goal and you reach them there's always room to make it better. You know, so maybe life sometimes you can even repeat a goal, you know, see if the second time works out even better. (Participant Six)

To that end, after a goal was selected by a participant, PARs reflected with participants to refine goal strategies “And she was really helpful about being like, what do you need from me? So, I mean, it was sort of like up to me to figure out the support that I wanted. And then she would help me with that” (Participant Five). Participants also found goal outcomes to be supportive. For example, Participant Five needed support from their PAR to limit the scope of the goal. “It was also helping me, like, create goals that were, like, measurable and appropriately sized, like, not too overly ambitious” (Participant Five).

**Not supportive.** The process of goal setting did not feel fluid or genuine for two of seven participants. For these participants, factors related to their philosophical beliefs and interpersonal relationships were shared in seven of the eleven excerpts coded as not supportive.

For one participant, the cycle of evaluation, feedback, and goal setting was too rapid. “That's very disingenuous—So, I don't like the idea of just jumping one thing to the next, to the next, just because it needs to go on a form or something” (Participant One). As mentioned above, goal setting for the program being studied is focused by evaluation feedback provided by administrators. For one participant, interpersonal conflicts arose when their PAR used these parameters to limit goal setting,
What was frustrating about, like, personally I like to challenge myself to be better and I'm not a stranger to it. But what was weird about setting goals in the PAR program is that often I would say, very honestly, like, what I wanted to work on and my PAR would tell me that that was not, like, a good goal for the PAR program. (Participant Seven)

Other participants also named interpersonal relationships as a factor perception that goal setting was not supportive for similar reasons. These results will be discussed in greater detail in Chapter Five.

**Summary.** This section of the interview included data related to PTs’ experiences with goal setting. Twenty-four excerpts were analyzed related to PTs’ perceptions of goal setting. These units were evenly categorized: twelve were categorized as supportive, while eleven were categorized as not supportive, with the one remaining unit categorized as neither. The factors influencing PTs’ perceptions of goal setting were varied; however, the outcome of goal setting was the most named factor for PTs who found it supportive, and philosophical differences with the goal-setting approach was most named for those who did not find it supportive. PTs’ perceptions of PAR impact on decision-making will be described next.

**PAR impact on decision-making.** Teachers consider leaving the profession for various reasons. Furthermore, research suggests that some teachers may think about leaving for long periods of time before they actually resign (Clandinin et al., 2015). This interview question is asked participants to share how their experiences with PAR impacted their decision to continue to teach or to continue to teach with the district.
Participants’ responses related to the program being studied were initially categorized as either impactful or not impactful. Categorical criteria were again drawn using participant language as the primary guideposts. Factors used to describe the experiences remain the same as the previous interview questions.

Figure 4.9
Impact Results

Nineteen excerpts related to the program’s impact on participants’ decisions to continue to teach were analyzed in this section. Fifteen excerpts were categorized as impactful and another four excerpts were categorized as not impactful (see Figure 4.7). Excerpts categorized as impactful were larger in number and will be presented first.

**Impactful.** Of the 15 excerpts categorized as impactful, five included factors related to participants’ perceptions of the goals of the program being studied. For Participant One, while the support might not have been supportive personally, the impact of the program for other teachers was apparent. For Participant Five, however, the cycle of observation and reflection and goal-setting was impactful and led to greater
confidence. Finally, Participant Three mentioned that PAR support later, upon request for tenured staff, “is a nice thing to think about.”

Next, program outcomes were listed as impactful factors for four participants. Two of these participants shared that being listened to was an important and impactful program outcome. Participant Four shared an experience of watching growth over the school year as impactful. Participant Five shared confidence related to the work, “I feel like I know what I'm doing more or that, like, I'm doing what I'm supposed to be doing in terms of, like, what the administrators want.”

The remaining factors were related to interpersonal relationships and the criteria participants used to judge the program being studied. For two participants, their interpersonal relationships with their PARs were impactful. For Participant One, in spite of philosophical differences with their PAR, there was encouragement and acknowledgment that was impactful. For Participant Three, the PAR shared several teaching experiences which the participant felt were relatable and impactful. For two participants, increased capacity, a criteria of program success, was impactful. Participant Five shared the following statement:

And I just feel like I also have a lot more strategies for working with students in terms of, like, instruction and behavior management strategies and, like, even just, like, nitty gritty due process tips, and things like that.

For Participant Six, the impact was related to their comfort at the school and the feeling that they are contributing something important every day.

*Not impactful.* In each of the four excerpts that were categorized as not impactful, participants shared that they would have returned to their teaching assignments-regardless
of their experience with PAR. Two of the three participants specifically named their
students as reason why they would return. “To be honest, I don't know if PAR had a big
influence on me wanting to stay or not stay. I really enjoy my students” (Participant
Two). For one participant, even though the experience was not particularly positive, it
was not negative enough to impact her decision to return. “I don't think, like, my
experience with PAR wasn't like amazing and life transforming, but it certainly wasn't
like negative to the point where I didn't want to continue working for [the school
district]” (Participant Seven).

**Summary.** This section of the interview included data related to PTs’ perceptions
of the impact of PAR on their decision-making. Nineteen units of data were analyzed
relative to PTs’ perceptions of PAR impact. Of these, fifteen were categorized as
impactful, while the remaining four were categorized as not impactful. PTs shared a
variety of factors related to their perceptions; however, program goals were mentioned
most often as an impactful factor. In this regard, PTs shared that, even though they might
not personally need the support, they felt that the program goals of teacher support and
professional growth were important for the district. Interpersonal relationships was the
most common factor shared for excerpts categorized as not supportive. PTs’ perceptions
of PAR impact on decision-making will be described next.

**PAR Impact on instructional practices.** The final question of the interview
asked participants to share what, if any, instructional practices they regularly use this year
as a result of their work with PAR. Each of the seven participants shared at least one
instructional strategy that they attributed to their work with PAR (see Table 4.10).
Table 4.10
*Instructional Strategies from PAR*

<table>
<thead>
<tr>
<th>Instructional Strategies</th>
<th>Behavioral Strategies</th>
<th>Professional/Technical Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reward system</td>
<td>Transitions</td>
<td>Administrator collaboration/relationship</td>
</tr>
<tr>
<td>Questioning and discussion</td>
<td>Relationship-building</td>
<td>Visuals</td>
</tr>
<tr>
<td>GLAD</td>
<td>Wait-time</td>
<td>Schoology</td>
</tr>
<tr>
<td>Four Square</td>
<td>No lost classes</td>
<td>Seesaw</td>
</tr>
<tr>
<td>Co-teaching</td>
<td></td>
<td>Garageband</td>
</tr>
<tr>
<td>Closure</td>
<td></td>
<td>Professional goals</td>
</tr>
<tr>
<td>Lesson planning/Unit planning</td>
<td></td>
<td>Due process</td>
</tr>
<tr>
<td>Guiding questions</td>
<td></td>
<td>Relationships across buildings</td>
</tr>
<tr>
<td>Popsicle sticks</td>
<td></td>
<td>PLC work</td>
</tr>
<tr>
<td>Equitable questioning</td>
<td></td>
<td>Collaboration</td>
</tr>
<tr>
<td>Visuals for EL students</td>
<td></td>
<td>Frank conversations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iPad for personalization</td>
</tr>
</tbody>
</table>

In addition to the practical strategies, one participant shared that they decided to more confidently follow their own professional judgement this year as a result of their work with PAR. “Just because, ultimately, if my vision is that different from everybody else's then I need to know so that, you know, I'm not just in the wrong place” (Participant One).

Summary

This chapter presented the findings of this qualitative case study, including descriptions of teacher retention during PAR, perceptions of teachers related to the components of PAR, and the impact of PAR on their decision-making. The results were organized by data type, beginning with evaluation data which answer the primary research question: *How does induction impact teacher retention?* Results from interview data follow and answer the secondary questions, including:

1. What components of induction do teachers perceive are supportive?
2. How do teachers describe the influence of induction practices on their continued employment?

In response to the primary research question, teacher evaluation and retention results include fall and spring evaluation results that were presented to the oversight board for the case being studied. Results from secondary analysis of evaluation data were also presented to more deeply respond to the primary research question.

To answer the secondary research question, seven participants of the program being studied were asked to share their perceptions related to induction components in the program being studied. These components include coaching, lesson plan feedback, data collection, self-assessment, evaluation and feedback, and goal-setting. Participants responses were analyzed and coded using methodology similar to Herzberg (1968b) resulted in three categories of responses: supportive, not supportive, and neither. See Appendix B for a graphic of Herzberg’s (1968b) Two-Factor Motivation Theory. Six factors related to participants’ perceptions of the program being studied emerged from recursive analysis (McMillan & Schumacher, 2010). These factors include criteria for evaluating the component, interpersonal relationships, outcome of the component, philosophy of teaching and learning, connection to program goals, and resource allocation. Participants’ responses to each component varied, as did the overall perception of support.

Participants were also asked to consider how the induction program being studied impacted their decision to continue teaching or to continue teaching in the district. Responses were categorized as impactful or not impactful, using similar methodology as
the previous questions. The final question of interview asked participants to share the impact of the program being studied on their instructional practices.

Themes from the literature, such as perception of administrative support and perception of mentor model, emerged from the findings. These findings will be discussed further in Chapter Five, including connections to the literature review, implications for practice, limitations of the study, and recommendations for further research.
CHAPTER FIVE

Conclusion

Introduction

Teacher induction programs have become increasingly common in recent decades (Ingersoll & Strong, 2011; Smith & Ingersoll, 2004) due in part to consistently high early-career attrition for teachers. In spite of the increased frequency of induction programs, empirical evidence linking induction, teacher retention, and other desirable outcomes, such as improved student achievement, remains elusive. In fact, recent large-scale studies (Glazerman et al., 2008; Glazerman et al., 2010) failed to find causal links between induction programs and teacher retention or student achievement. However, researchers have argued that, while Glazerman et al. (2008) added substantially to the understanding of induction, there were methodological limitations (Ingersoll & Strong, 2011) and the study lacked a theoretical model (Shockley et al., 2013), necessitating further study.

With these gaps in mind, the impact of induction on teacher retention was the focus of this qualitative case study. The purpose was to better understand how a specific induction program impacted retention. Teacher retention and evaluation data were examined, along with program documents, and interviews were conducted with seven program participants in service of the primary research question: How does induction impact retention? Secondary questions included:
1. What components of induction do teachers perceive are supportive?

2. How do teachers describe the influence of induction practices on their continued employment?

This chapter begins by first presenting a summary of connections between the current study and the literature. Second, implications for current practice will be presented. Third, limitations of the study will be reviewed. Finally, suggestions for further study will be presented.

**Connections to the Literature**

Analysis of the findings in this study, along with connections made from the literature, has led to the following two conclusions. First, induction programs may help clarify criteria for teacher retention. Study results revealed distinctions between classroom practices for teachers recommended for renewal compared with teachers recommended for non-renewal. Second, teacher perceptions of induction support are inconsistent and may not impact teachers’ decision-making. While perceptions of induction supports were inconsistent between interview participants, themes emerged from their responses that were consistent with previous findings in the literature. Connections between the literature and criteria for retention as well as perceptions of induction supports are presented in this section and follow a brief overview of the case.

**Overview of the case.** The case examined in this study was an example of a Peer Assistance and Review (PAR) model and was modeled after the Toledo, Ohio PAR Plan (Lawrence, 2003). The overview of the case includes a brief description of the induction components present in the program, modifications to the program, and factors unique to the program in the case being studied.
PAR is not a widely found induction model; however, many of the components present in comprehensive induction programs referenced in the literature, such as mentor selection and full-release mentors (NTC, 2015; TSP, 2009) were present in the case. Mentors in the case being studied are referred to as PARs. Participating teachers in this case are referred to as PTs. Like other examples of induction (see Table 5.1), PARs work to support the other components of the program, such as observation and presentations to the oversight panel.

Table 5.1
*AFTs (2016) Features Present in Case Being Studied*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of PT/PAR</td>
<td>Cap of 15:1</td>
</tr>
<tr>
<td>CTs evaluate PTs new to school and/or intern (first-year) teachers</td>
<td>Administrators solely responsible probationary evaluation. Data collected by CTs is shared with administrators and supports evaluation.</td>
</tr>
<tr>
<td>CTs support and coach veteran teachers</td>
<td>On a volunteer basis.</td>
</tr>
<tr>
<td>CTs evaluate veteran teachers who fail to meet minimum standards of teaching</td>
<td>No</td>
</tr>
<tr>
<td>Length of time PTs stay in program</td>
<td>Probationary teachers receive one school year of support; veterans support varies.</td>
</tr>
<tr>
<td>Training for CTs and administrators</td>
<td>Similar with additional training for CTs</td>
</tr>
<tr>
<td>Contract language stipulating terms of PR</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional compensation for CTs</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs report to PAR panel</td>
<td>Yes</td>
</tr>
<tr>
<td>CTs evaluations used for employment recommendations</td>
<td>No</td>
</tr>
</tbody>
</table>

Interview questions focused on PTs’ perspectives of these components and will be discussed in more detail related to teacher perceptions of induction supports.
Some modifications have been made to the model since the program’s inception. These modifications include a change in the role of mentors, or PARs, as well as the coaching model. In addition to frequent meetings, PARs take a constructivist (Richter et al., 2013) transformational (Achinstein & Athanses, 2005; Wang & Odell, 2002) approach to knowledge construction with teachers. The results of this study are similar to those of Langdon et al. (2016), who found that not all teachers are comfortable with this approach. As a component of the case, one interview questions asked PTs to share their experiences and perspective related to coaching. Conclusions related to their responses will be presented in more detail related to teacher perceptions of induction supports.

Factors related to implementation, including the fact that PAR was included as one phase of a larger induction program, made the case unique. Legal and contractual requirements, such as the participation requirement for all teachers, regardless of years of experience and previous achievement of tenure, were also unique to the case. As a result, although 60% of the 108 teachers in the initial report to the oversight board had less than four years of teaching experience, 26 teachers had over ten years of experience. Furthermore, unlike most of the induction programs referenced in the literature (e.g., Glazerman et al., 2008; Glazerman et al., 2010), most of the teachers (70/108) were in their second year of service with the district, rather than in their first. Finally, similar to other PAR programs, administrator recommendations for contract renewal were presented to the oversight board in the spring. Conclusions related to these factors are described in greater detail in the next section.

Criteria for teacher retention. Examination of teacher retention and evaluation data revealed patterns related to the criteria for teacher retention. The first set of data,
which described the number of teachers recommended for renewal, was used to compare retention in the program to state and national retention rates. Conclusions related to these data will be discussed first. Secondary analysis of evaluation data was used to compare instructional practices for teachers recommended for renewal and teachers recommended for non-renewal. Conclusions related to the number of teachers retained will be presented first.

Recommendations for contract renewal represent the number of teachers who will be retained by the district in the case examined in this study. Conversely, recommendations for non-renewal might be equated with turnover. With national teacher turnover rates near 17% and over 20% for urban schools (Carroll, 2007), oversight board members examined recommendation data closely. In addition to overall recommendations for non-renewal (see Table 5.2), which were slightly lower than the national average at 13.5%, data were disaggregated to show the number and percentage of renewals for white teachers and for teachers of color.

Table 5.2

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Renewal</td>
<td>90/104</td>
<td>86.5%</td>
</tr>
<tr>
<td>Teachers of Color Renewal</td>
<td>21/23</td>
<td>91.3%</td>
</tr>
<tr>
<td>White Teachers Renewal</td>
<td>69/81</td>
<td>85.1%</td>
</tr>
<tr>
<td>Total Non-renewal</td>
<td>14/104</td>
<td>13.5%</td>
</tr>
<tr>
<td>Teachers of Color Non-renewal</td>
<td>2/23</td>
<td>8.7%</td>
</tr>
<tr>
<td>White Teachers Non-renewal</td>
<td>12/81</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

Administrators recommended non-renewal for 2/23 teachers of color, or 8.7%, and 12/81 white teachers, or 14.8%. Turnover rates for teachers of color and white teachers were
also below the state one-year average of 15.1%. The impact of attrition is particularly high for high-poverty, low-performing schools (New Teacher Center [NTC], 2016). These data suggest that this program reduces this impact by increasing retention relative to state and national averages. In addition, retention of teachers of color is proportional to retention of white teachers. These data suggest that induction in this case increases the likelihood that students of color will have access to high-performing teachers who look like them (MDE, 2017). This section described the number of teachers retained for the case examined in this study. Criteria for retention, resulting from analysis of evaluation data, will be discussed next.

Researchers have addressed the need for induction programs to support high quality instruction (Carroll, 2007) as well as processes to remove teachers who do not meet high standards (Ingersoll & Strong, 2011). However, literature related to the criteria for teacher retention is lacking. Results related to instruction in the form of administrator evaluation reports were presented to the PAR oversight board in the fall and spring and add to the knowledge base related to this topic in a number of ways. First, these data reveal an overall pattern of growth for teachers recommended for renewal and, conversely, a general pattern of stagnation or decline for teachers recommended for non-renewal. A brief overview of the rubric criteria will be presented next, followed by a description of these trends.

The teacher evaluation tool used in the case describes and defines instructional practices in terms of frequency (see Table 5.3) across three performance domains. The domains include Elements of Effective Instruction, Environment for Learning, and Professional Responsibilities. Instruction is further described and defined within the
domains by elements, such as Questioning and Discussion and High Behavior Expectations. Performance indicators include “Below Standard,” “Developing,” “Proficient,” and “Distinguished.” Descriptions of performance within each indicator measure the frequency of use. For example, descriptions of instructional practice for “Below Standard” performance indicators include adjectives such as “few, no or seldom,” while “Proficient” performance indicators include adjectives such as “many, all, or often.”

Table 5.3
Evaluation Tool - Sample of Performance Indicators, Domains, and Elements

<table>
<thead>
<tr>
<th>Performance Indicator→</th>
<th>Element</th>
<th>Below Standard</th>
<th>Developing</th>
<th>Proficient</th>
<th>Distinguished</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain: Elements of Effective Instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Academic Expectations</td>
<td>• Some academic expectations are rigorous with some busywork</td>
<td>• Most academic expectations are rigorous with minimal busywork</td>
<td>• High rigor in which students have multiple opportunities to achieve</td>
<td>Meets Proficient AND:</td>
<td>• Both students and teachers maintain a culture of high academic expectations</td>
</tr>
<tr>
<td></td>
<td>• Conveys a negative attitude toward the content</td>
<td>• Communicates importance of work, but with little conviction and minimal buy-in by students</td>
<td>• Actions (verbal and non-verbal) reinforce belief that all students can learn</td>
<td></td>
<td>• Virtually all students receive the consistent message that they are expected to attain high standards in their schoolwork</td>
</tr>
<tr>
<td></td>
<td>• Some students receive the message that they are expected to attain high standards in their schoolwork and some students do not</td>
<td>• Most students receive the message that they are expected to attain high standards in their schoolwork</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Domain: Environment for Learning

| Behavior Monitoring and Response | • Student behavior is not monitored | • Sometimes intervenes to redirect student behavior | • Alert to student behavior at all times | Meets Proficient AND: | • Monitoring is subtle and preventative |
| | • Unaware of what students are doing | • May miss behaviors of some students | • Monitoring is preventative and consistent | | • Students monitor their |
Patterns within the retention data suggest that increased frequency of instructional practices, as measured by the evaluation tool, is one criteria for retention. As mentioned above, performance indicators used in the case measured frequency. In this way, upward trends related to evaluation data reflect increased frequency of instructional strategies, rather than improved quality of teaching, as suggested in the literature (Ingersoll & Strong, 2011). General, or overall evaluation data results, were examined in order to first determine whether such patterns exist and second to describe any patterns that may emerge. (See Table 5.4.)

Table 5.4
Overall Teacher Evaluation Data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>28 (26%)</td>
<td>4 (16%)</td>
<td>56 (54%)</td>
</tr>
<tr>
<td>Developing</td>
<td>76 (70%)</td>
<td>16 (64%)</td>
<td>44 (42%)</td>
</tr>
<tr>
<td>Below Standard</td>
<td>4 (4%)</td>
<td>5 (20%)</td>
<td>4 (4%)</td>
</tr>
</tbody>
</table>

In this regard, 76/108 teachers were evaluated as overall developing by their administrators in the fall. In the spring, the number of teachers evaluated as overall developing dropped to 44/104. Furthermore, the number of teachers evaluated as proficient increased from 28 in the fall to 56 in the spring. Additional analysis of evaluation data provided deeper understanding of the growth trends that informed
renewal recommendations and whether growth trends were present relative to recommendations for renewal. Conclusions related to these results will be presented next.

Research suggests that less difficult instructional techniques are acquired more quickly by novice teachers than more difficult techniques (Maulana et al., 2015). In this way, researchers place instructional strategies on a continuum, with strategies such as “learning climates and clear instruction” on the “less difficult” end, and “adaptation” on the “more difficult” end (Maulana et al., 2015). While the elements presented in the evaluation tool are not ranked nor presented in a hierarchical manner, patterns in the secondary analysis of the evaluation data suggest that teachers recommended for renewal utilize both a wider variety of instructional strategies and utilize them more regularly (see Figure 5.1).

Figure 5.1
*Mean Elements by Performance Indicator*

To that end, the significant difference in average “Proficient” elements for teachers recommended for renewal compared to teachers recommended for non-renewal suggests
that teachers who are retained are using a variety of instructional practices more often and engaging more students with them.

Further analysis of evaluation data revealed additional contrasts between teachers who were recommended for renewal and those who were recommended for non-renewal. Similar to “Proficient” performance indicators, “Below Standard” descriptors may include adjectives such as few, no, or infrequently. When scores for each element measured by the evaluation rubric were averaged for teachers recommended for non-renewal and renewal, the average scores for teachers recommended for non-renewal were “Below Standard” for 19/40 elements (see Table 5.5). By way of contrast, while evaluation data suggested that teachers recommended for renewal utilized a variety of instructional strategies frequently with students, the data also suggested that teachers recommended for non-renewal either utilized a small handful of instructional strategies, failed to attempt strategies, or were using strategies that left most students disengaged.

Table 5.5
Evaluation Elements by Domain

<table>
<thead>
<tr>
<th>Evaluation Domain</th>
<th>Domain Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements of Effective Instruction</td>
<td>1. Written Lesson Plans</td>
</tr>
<tr>
<td></td>
<td>2. Authentic Learning Supports [District] Standards</td>
</tr>
<tr>
<td></td>
<td>3. High Academic Expectations</td>
</tr>
<tr>
<td></td>
<td>4. Content Delivery Respects Diverse Groups</td>
</tr>
<tr>
<td></td>
<td>5. Pedagogical and Content Knowledge</td>
</tr>
<tr>
<td></td>
<td>6. Lesson Recognizes Students’ Interests, Abilities, and Experiences</td>
</tr>
<tr>
<td></td>
<td>7. Lesson Objectives/Goals</td>
</tr>
<tr>
<td></td>
<td>8. Rubrics and Criteria Charts</td>
</tr>
<tr>
<td></td>
<td>9. Co-teaching (if applicable)</td>
</tr>
<tr>
<td></td>
<td>10. Accessing Prior Learning</td>
</tr>
<tr>
<td></td>
<td>11. Teacher Modeling</td>
</tr>
<tr>
<td></td>
<td>12. Instructional Techniques</td>
</tr>
<tr>
<td></td>
<td>13. Differentiation</td>
</tr>
<tr>
<td></td>
<td>14. Instructional Groups</td>
</tr>
<tr>
<td></td>
<td>15. Purposeful Talk</td>
</tr>
<tr>
<td></td>
<td>16. Questioning and Discussion</td>
</tr>
<tr>
<td></td>
<td>17. Function of Technology Used in Instruction</td>
</tr>
<tr>
<td></td>
<td>18. Students Accessing and Presenting Information</td>
</tr>
</tbody>
</table>
Summary. Administrative recommendations for teacher renewal and non-renewal, along with evaluation data, were presented to the oversight board in the fall and spring. These data make it possible to compare retention rates of the case to state and national averages and, as mentioned above, suggest that the case presented in this study reduces the impact of attrition relative to state and national averages. Furthermore, the case increases the likelihood the students of color will be served by teachers who look like them. Secondary analysis of the evaluation data allowed for a description of the criteria for retention relative to instructional practices. Teachers recommended for renewal were not only evaluated as “Proficient” overall by their administrators, the median number of “Proficient” elements for this group was 29 of the 40 total elements, on the evaluation document. Conversely, average scores for teachers recommended for non-renewal were “Below Standard” for 19/40 elements on the spring evaluation.
document. These scores represent stagnation or regression—clearly not the instructional growth that would be expected during induction. While there are no “hard and fast” criteria for retention, these data suggest a pattern of retention. Taken together, the results from the case examined in this study suggest that induction programs impact retention by clarifying the criteria for retention. Conclusions related to teachers’ perceptions of induction support will be presented next.

**Perceptions of induction support.** The conclusions presented in this section arose from the aligned purposes of the interviews and study, which were to better “understand themes of the lived daily world from the subjects’ own perspectives” (Brinkmann & Kvale, 2015) and to better understand teachers’ perceptions of the induction components, respectively. Analysis of interview data revealed that perceptions of induction support were inconsistent and connections between induction support and decision-making were lacking in the data. In order to arrive at these conclusions, seven participants shared experiences related to six induction components: coaching, lesson plan feedback, data collection, self-assessment, evaluation and feedback, and goal-setting. Participants’ use of positive and negative language relative to these experiences was analyzed during initial categorization to arrive at the supportive and not supportive categories for each of the components. Six contributing factors emerged from further analysis and included: criteria, interpersonal relationships, outcome, philosophy/theory, program goals, and resource allocation. These themes were also present in previous research findings. Connections between the literature and study findings will be presented as follows: conclusions related to attrition, conclusions related to expectation of coaching relationship, and conclusions related to the impact of induction on decision-making.
Evidence in the literature suggests that teachers may leave, even after they have completed the requirements of the PAR program. While there was no evidence that any of the PTs interviewed for the study were intending to leave, the extent to which PTs found the induction components not supportive suggested objections to policy that were present in the literature. For example, Glazer (2018) studied the decision-making of “invested leavers,” teachers who “made it through the difficult early part of the career before deciding to leave” (p. 62). The perspectives of these teachers revealed that attrition is less about “changing employment landscape, the nature of the organizations, or of the job itself, and instead indicate that increased attrition may also result from teachers’ objections to various educational policies and their implementation” (Glazer, 2018, p. 63). The literature further suggested that a variety of factors play into their decision-making, which takes place over a long period of time (Clandinin et al., 2015), including philosophical and interpersonal differences, which were also factors present in the interview results. The implications of these philosophical and interpersonal differences, including recommendations from researchers (Clandinin et al., 2015; Glazer, 2018), will be described in greater detail related to implications for practice and future study.

Some of the tension expressed by the participants was predictable, according to Langdon et al. (2016). Langdon et al. (2016) found that, like some of the participants in the case examined in this study, conflicts between teachers and mentors arose when what new teachers were expecting out of the mentoring relationship did not match their experience. Focusing specifically on coaching, while three of seven participants did not find the reflective process of coaching supportive, Wang and Odell (2002) argued that new teachers need mentor support to “examine their beliefs about teaching and learning
to teach” (p. 513). What is difficult to quantify or judge, however, is the extent to which the differences will impact decision-making.

Interestingly, three of the seven interview participants did not feel that the induction components impacted their decision to remain in the district or to continue to teach. While this is fewer than half of the interview participants, it is a significant portion. The consistency, for two of the three participants, was also striking: they each specifically named their students as the reason they intended to return to their schools and the district. The remaining four participants indicated, however, that the induction components were impactful related to their instructional practice. The reasons they stated mirror the literature, and included having someone to reflect with (Sowell, 2017), recommendations (Giles et al., 2013), and continued professional growth (Bressman et al., 2018).

**Summary.** As mentioned above, teacher perceptions related to the induction components in the case examined in this study were inconsistent, which makes drawing definitive conclusions difficult. Evidence supporting individual induction components is relatively absent in the literature (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004). What is present, however, both in the literature and results of the case examined in this study, is evidence to support the efficacy of induction strategies that are intentionally individualized and contextualized to meet the needs of the teacher (Martin et al., 2016). These findings suggest that a more individualized approach may be more supportive and mitigate sources of conflict that may lead some teachers to choose to leave the district, or teaching all together, after they have completed PAR.
Implications for Current Practice

The results of this study have implications for current practices related to criteria for teacher retention and perceptions of support. First, current data collection methods allow for analysis of classroom instruction for individual teachers, disaggregated groups of teachers, and cohorts of PAR teachers in ways that were previously not available or feasible. Second, the interview responses revealed the need for additional learning and work to define and refine induction supports. Implications for the use of data will be presented first.

Data currently being gathered for oversight board presentations could be further analyzed to support growth and more specific instructional expectations. Comparisons of instructional practices for teachers who had been recommended for renewal and teachers who had been recommended for non-renewal was not previously possible. While the overall results allowed for comparison to state and national attrition statistics, secondary analysis of evaluation results provided the basis for description of classroom practices. Google Forms and Google Sheets could continue to be used to gather, organize, and analyze evaluation data for these groups of teachers going forward. Comparison of fall and spring data, disaggregated by content, grade level or years of experience in addition to renewal and non-renewal, could provide greater understanding of patterns of growth (or stagnation). These data could also be employed for the purpose of developing common instructional expectations and criteria for retention, which are not currently articulated. Use of data in these ways may also address practice related to perceptions of support, which will be discussed next.
The findings of this study suggest that additional work to define, address and respond to teacher perception of induction support could deepen trust between teachers and PARs. Specifically, interview results showed there is disagreement around what constitutes induction support. For example, from the perspective of a district administrator support might include evaluation, mentoring, or any of the induction components offered by the district. From the perspective of a new teacher, support might include something else entirely. To address this disagreement, introductory surveys or interviews with the intent to define induction support may be a first step. Coaching tools may also be created to support 1:1 conversations for this purpose as well. This choice may also increase trust between PARs and PTs by creating transparent structures for engaging in difficult conversations. Finally, data from surveys, interviews, or coaching conversations could be used to differentiate coaching strategies. In this way, the course of induction could be individualized to address the concerns of teachers who, like Glazer’s (2018) “invested leavers,” make significant investments in their schools and careers before leaving as a result of philosophical or practical disagreement.

Thankfully, as Clandinin et al. (2015) argued, these decisions are not taken lightly and occur over time. With this time, induction and school leaders might begin by ensuring that supports match teachers’ preferences. In conjunction with careful analysis of evaluation data, PAR leaders may consider how to individualize support options for teachers to enhance the quality of the experience for teachers and increase instructional growth.
Recommendations for Future Study

Further study related to description of practice and teachers’ perceptions of support could address gaps in the literature and the findings of this study. As mentioned above, while the literature supports the efficacy of induction supports in combination with one another, researchers have not found evidence to support the individual efficacy of any single induction component. (Glazerman et al., 2008; Glazerman et al., 2010; Ingersoll & Strong, 2011; Shockley et al., 2013; Smith & Ingersoll, 2004). Furthermore, while the current study attempted to address the connection between induction and support, there is still much left to be explored. Recommendations to address these gaps follow, beginning with recommendations for classroom practice.

As mentioned above, current data collection methods within the context of this study will allow for examination of classroom practice in ways that were previously not possible. Collection and analysis of teacher evaluation data could be used to address knowledge gaps in three areas. First, ongoing examination of classroom practices would make it possible to describe and analyze patterns of instructional practice for teachers receiving PAR support. These data could be used to inform ongoing professional development plans, both at the district and school levels. Second, disaggregation of this data, by years of experience, race, gender, preparation program, PAR/PT pairings, and other factors could continue to be used to evaluate the extent to which induction supports are equitably supporting teachers new to the district. Finally, data related to instructional patterns and, more specifically, growth across rubric elements could be used to evaluate and refine evaluation feedback, which interview participants found particularly supportive.
The findings of this study presented preliminary description of the factors that impact teacher perceptions of induction support; however, additional research is necessary to address knowledge gaps. First, the factors of support described in this study would benefit from greater clarification and definition. Like Herzberg (1968b), additional cohorts of participants would provide additional perspectives for this purpose. Second, the extent to which individual factors, such as mindset and coaching style, impact perceptions of support may further clarify these factors as well.

**Biases and Limitations**

An important bias comes from the fact that I have worked in the context of this case for my entire working life. The most prominent, however, is that I was a PAR coach for three of the previous school years and led the team for the previous two years. In short, I am immersed in this work. That being said, I am also heavily invested in ensuring that I do what is best for the students and teachers I serve. A mitigating factor that limits this bias is that tenure on the PAR team is limited, so my time on the team is drawing to a close at the exact same time as this study comes to an end.

Limitations for this study include the following: the unique case, the sample methodology, and limited data collection. First, due to the unique nature of PAR, the findings are difficult to generalize beyond the case. The additional modifications made to PAR by the district make the case unique, even among examples of PAR, further limiting the findings. As a result, the purpose, research paradigm, and methodology, in addition to the conclusions reached in this study account for this limitation. Second, maximum variation sampling methodology was selected in order to get the widest possible perspectives from the teacher participants. In order to limit bias, information related to
which PARs worked with the teachers was not collected prior to sampling. Comments made during the interviews, including the names of PARs, indicated that some of the participating teachers worked with at least one of the same PARs. Consequently, individual coaching approaches may be an unexamined factor in the results. Inclusion of this information in the sampling methodology would minimize the impact of this limitation. Finally, although archival data, secondary data, and interview were used to validate the findings, survey or focus group for example, may provide additional sources of information not present in the current study. While the methodology for the current study is well-matched with the purpose of the study and provided ample data for the descriptive case study, additional data sources could support confirmation the patterns of instruction and factors of support identified in this study.

Suggestions for future research sought to address these limitations for the purpose of deepening future research by increasing the sample size, disaggregating the data, and increasing the methods of data collection. Several interview participants shared perspectives specifically related to coaching. Further examination of coaching, coaching style, and implementation, as well as the defining factors of PTs’ perspectives, have the potential to identify next steps for PAR.

**Final Thoughts**

My final thoughts return to the conceptualization of induction. This model (see Figure 5.2), taken from the Glazerman et al.’s (2010) follow-up study, represents the dominant model of induction. In this model, there is a presumption about induction supports, both in terms of what they are and what they lead to. Induction research, based on this model, has thus far failed to produce evidence of these connections.
This is, to my mind, the greatest indicator for a new conceptual framework for induction and therefore a new model for induction. I believe Shockley et al.’s (2013) model (see Figure 5.3), which acknowledges teachers’ fundamental needs, is a solid step in the right direction.

It is my belief that this model may be further enriched by the findings of this study to include specific strategies for increasing satisfiers and decreasing dissatisfiers for each of
the examined induction components as well as the manner in which evaluation results are utilized by the district. Detailed explanations related to each recommendation follow and are represented in Figure 5.4.

**Figure 5.4**

*Induction Model*

![Induction Model Diagram]

In this model, induction supports would be situated between teacher perceptions, contextual factors and potential outcomes, similar to the Shockley et al.’s (2013) model. Furthermore, in response to the results of this study, the supports would be individualized and differentiated relative to the specific needs of the teacher and context. Suggestions for each of the induction components are presented next.

First, the results suggest that PARs should continue to work to build trust with PTs, which may include reducing or eliminating PARs’ role in evaluation and focusing coaching more carefully on teacher-identified needs. Second, in terms of lesson plan feedback, participants did not find general feedback supportive. There was also concern about the amount of time spent planning. The results suggest that lesson plan feedback
should be specific and, perhaps, include strategies that help teachers plan more efficiently. Third, interview participants found data collection to be supportive and the results suggest that PARs should continue to use data to acknowledge growth and support teachers’ areas of growth. Fourth, teachers were not clear about the purpose of self-assessment and, if they were, found the tool burdensome and the process too formal. In response, the results suggest that the process of self-evaluation be streamlined to highlight and deepen teachers’ knowledge of their areas of strength and growth. PARs also need to clarify what teachers should do with the self-assessment data. Fifth, teachers’ perspectives around evaluation and feedback indicate a need to address philosophical differences related to the evaluation process and rubric while also increasing the process as an opportunity to build trust and acknowledge strengths. Similar to lesson planning, teachers perceive specific feedback as supportive. These results suggest that PARs should continue to work with administrators to provide specific feedback during the evaluation process. Finally, similar to the evaluation and feedback component, goal-setting provided an opportunity for trust building and documentation of growth. It was also an area for disagreement and lack of clarity. Overall, these results suggest that, across components, teachers value trust, clarity, acknowledgement, and opportunities that support growth.

Summary

This chapter reviewed the study’s conclusions, beginning with an introduction to the study and its purpose. The findings and conclusions were couched in and supported by, when possible, the literature. At times, the literature is absent or silent. These have been noted as well. Implications for current practice attempted to build on the findings of the study and recommendations for research sought to fill the gaps that were found.
Biases and limitations were noted and acknowledged to close the chapter. The chapter closed with final thoughts related to the dominant induction model, Shockley et al.’s (2013) suggestion, and additions to this model based on the findings of this study.
REFERENCES


doi:10.1016/j.tate.2015.01.005


https://doi.org/10.1080/01626620.2007.10463425


https://www.jstor.org/stable/23365377

https://doi.org/10.1016/j.tate.2018.04.011


https://doi.org/10.1177/105268460701700406

https://doi.org/10.1086/512741

https://www.jstor.org/stable/3699559


### Table 1: Elements of Minnesota Teacher Induction Programs

<table>
<thead>
<tr>
<th>251 Total Districts</th>
<th>Statewide Count</th>
<th>Percent Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Induction Program Length</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program for first-year teachers</td>
<td>212</td>
<td>84%</td>
</tr>
<tr>
<td>Program for second-year teachers</td>
<td>83</td>
<td>33%</td>
</tr>
<tr>
<td>Program for third-year teachers</td>
<td>46</td>
<td>18%</td>
</tr>
<tr>
<td><strong>B. Induction Activities for New Teachers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration time expectations for new teacher and mentor</td>
<td>187</td>
<td>75%</td>
</tr>
<tr>
<td>Formative assessments to guide their professional growth (e.g., needs assessments, self-assessments using professional teaching standards, mentor observations, examining student work)</td>
<td>126</td>
<td>50%</td>
</tr>
<tr>
<td>New teacher observations of master teachers</td>
<td>112</td>
<td>45%</td>
</tr>
<tr>
<td>New teacher orientation to district, school, and classroom (typically conducted prior to the start of the school year)</td>
<td>242</td>
<td>96%</td>
</tr>
<tr>
<td>New teacher seminars/workshops</td>
<td>157</td>
<td>63%</td>
</tr>
<tr>
<td>Observations conducted by a mentor</td>
<td>138</td>
<td>55%</td>
</tr>
<tr>
<td><strong>C. New Teacher Seminars or Workshops</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom management</td>
<td>186</td>
<td>74%</td>
</tr>
<tr>
<td>Content or program knowledge</td>
<td>138</td>
<td>55%</td>
</tr>
<tr>
<td>Curriculum and assessment</td>
<td>164</td>
<td>65%</td>
</tr>
<tr>
<td>Differentiated instruction</td>
<td>112</td>
<td>45%</td>
</tr>
<tr>
<td>Instructional strategies</td>
<td>198</td>
<td>79%</td>
</tr>
<tr>
<td>Lesson planning</td>
<td>107</td>
<td>43%</td>
</tr>
<tr>
<td>Using data to improve instruction</td>
<td>178</td>
<td>71%</td>
</tr>
<tr>
<td><strong>D. Formative Assessments used with New Teachers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examining student work or student data</td>
<td>103</td>
<td>41%</td>
</tr>
<tr>
<td>Needs assessments</td>
<td>89</td>
<td>35%</td>
</tr>
<tr>
<td>Mentor logs focused on issues and results</td>
<td>91</td>
<td>36%</td>
</tr>
<tr>
<td>Mentor observations and feedback</td>
<td>172</td>
<td>69%</td>
</tr>
<tr>
<td>Self-assessments using professional teaching standards</td>
<td>127</td>
<td>51%</td>
</tr>
</tbody>
</table>

Appendix B

Herzberg’s (1968a) Two-Factor Motivation Theory

Exhibit I. Factors affecting job attitudes, as reported in 12 investigations

Factors characterizing 1,844 events on the job that led to extreme dissatisfaction

Percentage frequency

Factors characterizing 1,753 events on the job that led to extreme satisfaction

Percentage frequency

Company policy and administration

Supervision

Relationship with supervisor

Work conditions

Salary

Relationship with peers

Personal life

Relationship with subordinates

Status

Security

Achievement

Recognition

Work itself

Responsibility

Advancement

Growth

All factors contributing to job dissatisfaction

69% Hygiene

19%

21

Motivators

81%

All factors contributing to job satisfaction

80% 60 40 20 0 40 60 80%
Appendix C

Interview Guide

Heidi Dunlap
Interview Questions
How does induction impact retention: A case study

Introduction
The purpose of this study is to examine how induction impacts teacher retention. You have been selected to participate in this study because you have recently completed a particular and specific teacher induction program with your school district. The researcher is interested in your perspective on the various components of this induction program and, specifically, how or whether these components might be impacting your thinking about teaching at your current site or teaching in general.

Interview contents and data analysis
The interview will begin with questions that focus on your teacher preparation program and previous teaching experiences and concludes with questions specific to the induction program being studied and the impact of the components on your practice. Your responses will be analyzed for common themes as a way to better understand how you have experienced the induction program and how your experiences are impacting your decision to remain at your current site or in the teaching program in general.

Privacy
If you agree, your interview will be recorded and transcribed. Your responses will be anonymous, and any personal identifiers will be removed after transcription and recordings will be deleted after publication in order to maintain privacy.

Part One: Background Questions
1. Describe your previous teaching experience, including what you recall from your teacher preparation program.
2. In what ways were your previous teaching experiences and/or your teacher preparation program supportive as you began your work with the district?
3. In what ways did your previous learning impact your decision to begin your new position with the district?

Part Two: Background Questions
4. What did you know about induction programs prior to beginning your work with the district?
5. Describe your impressions of induction programs prior to beginning your work with the district.
Part Three: Description and Analysis of Induction Experiences

6. Limiting your responses to the Mentor/Mentee program: describe your experiences with mentoring.

*Note: The mentor/mentee program is a first-year induction support component that pairs first year teachers with building mentors. Expectations of this program include classroom observation and reflection, in addition to coaching conversations.*

7. How did your experience with the mentor/mentee program impact your decision to continue your work with the district?

8. Limiting your responses to the Peer Assistance and Review (PAR) program:
   a. Describe your experiences with coaching.
   b. Describe your experiences with lesson plan feedback.
   c. Describe your experiences with data collection and/or classroom observation.
   d. Describe your experiences with self-assessment.
   e. Describe your experiences with evaluation and feedback.
   f. Describe your experiences with goal setting.

*Note: Peer Assistance and Review (PAR) is a second-year support component that pairs second-year teachers with district coaches, most of whom have similar content and grade-level experience. Expectations of this program include four (4) observation/meeting cycles per month, as well as lesson plan feedback, goal-setting, self-assessment, and evaluation.*

9. How did your experiences with the PAR impact your decision to continue your work with the district?

10. How has PAR impacted your work with this year? Consider, for example:
    a. Instructional strategies
    b. Behavior management
    c. Collaboration with building/district colleagues
    d. Access to resources
    e. Relationships with administrators
    f. Other areas
Appendix D

Recruitment Email

Dear [insert name],

My name is Heidi Dunlap and I am a student from the Graduate School of Education at Hamline University. I am writing to invite you to participate in my research study about the impact of induction practices on teacher retention. You are eligible to be in this study because you have recently participated in the Peer Assistance and Review (PAR) program. I obtained your contact information from Saint Paul Public Schools.

If you decide to participate in this study, you will participate in a one-hour interview. You will be provided a ten (10) dollar gift certificate to either Caribou Coffee or Target for your participation. I would like to audio record your interview and then we'll use the information to identify the themes that emerge in your responses, and those of other participants, in order to determine which factors play the largest role in your decision to continue to teach in Saint Paul Public Schools and the extent to which, if any, the various components of PAR impacted those factors.

Remember, this is completely voluntary. You can choose to be in the study or not. If you'd like to participate or have any questions about the study, please reply to this email or contact me at 651-341-8018.

Thank you very much.

Sincerely,
Appendix E

Email Response to Interested Participants

Dear [insert name],

Thank you for agreeing to participate in my study of teacher induction.

In the coming weeks maximum purposive sampling strategies will be utilized to select study participants so that respondents will reflect the widest possible perspectives within the selected sample.

If you are selected, Hamline University's Institutional Review Board (IRB) consent form will be shared. The consent form outlines the strategies that will be utilized to protect your identity. For example, neither your name nor identifying characteristics will appear in the transcripts or reports and all results are confidential and anonymous.

Please let me know if you have further questions.

Best regards,
Appendix F

Selection Notification Email

Dear [insert name],

I hope this email finds you well.

Thank you for agreeing to participate in the teacher induction study. I have reviewed all of the interested participants to ensure that the study will examine a broad range of perspectives. You have been selected to participate based on a variety of factors including grade level of teaching experience, licensure, gender, years of experience, and race.

Please find the study consent form attached. The form includes contact information, as well as other details related to your participation in the study. Your participation will be limited to a one-hour interview at a professional location of your choice, at a date and time of your choosing. If at all possible, I would like to schedule the interviews between January 21 and February 8. If you agree, the interview will be audio recorded and transcribed by a professional court reporter.

I look forward to hearing from you. Please feel free to call or email me if you have questions.

Best regards,
Informed Consent to Participate in Research
Hamline University

You are being asked to participate in a research study. This form provides you with information about the study. The Principal Investigator (the person in charge of this research) or their representative will provide you with a copy of this form to keep for your reference, and will also describe this study to you and answer all of your questions.

This form provides important information about what you will be asked to do during the study, about the risks and benefits of the study, and about your rights as a research subject.

- If you have any questions about or do not understand something in this form, you should ask the research team for more information.
- You should feel free to discuss your potential participation with anyone you choose, such as family or friends, before you decide to participate.
- Do not agree to participate in this study unless the research team has answered your questions and you decide that you want to be part of this study.

Your participation is entirely voluntary, and you can refuse to participate or withdraw at any time.

Title of Research Study: How induction impacts retention: A case study
Student Researcher and email address: Heidi Dunlap; hdunlap02@hamline.edu
Principal Investigator (Faculty Advisor), Hamline affiliation/title, phone number(s), and email address: Dr. Kimberly Hartung, Associate Professor and Faculty Director/Advanced Degrees and Administrative Licensure, 651-523-2928, khartung02@hamline.edu

1. Who is funding this study? There is no outside funding source for this study.

2. Has this research received consent from the organization/school/district where the research will be conducted? Yes

3. What is the research topic, purpose, and its rationale? The current study focuses on the impact of teacher induction programs on retention. The objective of
the study is to determine how the Teacher Induction Program being studied impacts retention. Secondary questions seek to determine which factors of induction teachers find supportive and how teachers describe the influence of induction practices on their continued employment. The researcher’s interest in this topic stems from the consistently high attrition rates in the state and the context of the study in particular.

4. **How many people will most likely be participating in this study?** 6-10 participants

5. **What will be done if you take part in this research study?** If you agree to be in this study, you will be asked to participate in a one-hour interview at a professional setting. Questions asked during the interview will examine your previous teaching experiences and teacher preparation, as well as your understanding of induction. The interview will close with questions that examine your experiences with Peer Assistance and Review (PAR) and the impact these experiences may have had on your work this year. The interview questions are open-ended and I will provide the questions in advance if you wish. With your permission, the interview will be audio recorded solely for the purposes of accurately transcribing the conversation.

- **Screening to determine eligibility for the study:** Participants in this study will be in their third year of teaching in the context being studied and will have participated in the induction program being studied during the previous (2017-2018) school year.

6. **What is your time commitment to the study if you participate, and the duration of entire project?** Your time commitment will not exceed beyond the one-hour interview period.

7. **What are the possible discomforts and risks?** By participating in this study, there is a small chance of loss of confidentiality. In order to mitigate this risk, your identity will be protected. Neither your name nor identifying characteristics will appear in the transcript or report. Pseudonyms will be used in transcripts and reports. The interview recording and transcripts will be stored in secure locations and will be destroyed after publication. Please contact me at hdunlap02@hamline.edu or 651-341-8018 or my faculty advisor Dr. Kimberly Hartung at khartung02@hamline.edu or 651-523-2928 to discuss this if you wish.

8. **What are the possible benefits to you and/or to others?** Your participation in this study will contribute to greater understanding of the perceptions and needs of teachers new to the district.

9. **If you choose to take part in this study, will it cost you anything?** There are no costs related to participation in this study.

10. **Will you receive compensation for participation in this study?** Ten (10) dollar coffeeshop or Target gift cards will be provided as compensation for participation in this study.

11. **What if you decide that you do not want to take part in this study? What other options are available to you if you decide not to participate or to withdraw?**
Your participation in this study is entirely voluntary. You are free to refuse to participate in the study, and your refusal will not influence your current or future relationships with Hamline University or with Saint Paul Public Schools.

12. How can you withdraw from this research study and who should you call if you have questions? You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled. If you wish to stop your participation in this research study for any reason, you should contact me at hdunlap02@hamline.edu or 651-341-8018 or my faculty advisor (the Principal Investigator), Dr. Kimberly Hartung at khartung02@hamline.edu or 651-523-2928. You should also call or email the Principal Investigator for any questions, concerns, suggestions, or complaints about the research and your experience as a participant in the study. In addition, if you have questions about your rights as a research participant, please contact Dr. Lisa Stegall, Chair of the Institutional Review Board at Hamline University at IRB@hamline.edu.

13. Are there any anticipated circumstances under which your participation may be terminated by the investigator without your consent? There are no anticipated circumstances under which your participation may be terminated by the investigator without your consent.

14. How will your privacy and the confidentiality of your research records be protected? Neither your name nor identifying characteristics will appear in the transcript or report. All results will be confidential and anonymous. Recordings and transcripts will be stored in the researcher’s Hamline University Drive account during the course of the study and will not be shared. Printed transcripts will be stored in a secure location at the researcher’s home office. The interview recording will be destroyed after publication.

15. Will the researchers benefit from your participation in this study? The researchers will gain no benefit from your participation in this study beyond the publication and/or presentation of the results obtained from the study, and the invaluable research experience and hands-on learning that the students will gain as a part of their educational experience.

16. Where will this research be made available? The research is public scholarship and the abstract and final product will be catalogued in Hamline’s Bush Library Digital Commons, a searchable electronic repository. It may also be published or used in other ways, such as journal articles or conference presentations.

Signatures:

As a representative of this study, I have explained the purpose, the procedures, the benefits, and risks that are involved in this research study:

__________________________________________  _________________________
Signature and printed name of person obtaining consent  Date
(Student researcher or PI)
Title of person obtaining consent

You have been informed about this study’s purpose, procedures, possible benefits and risks, and you have received a copy of this Form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

Printed name of participant ___________________________ Date __________

Printed name of parent/guardian if participant is under 18 ___________________________ Date __________

Signature of participant (or parent/guardian for participants under 18) ___________________________ Date __________

Signature of Principal Investigator ___________________________ Date __________
Appendix H

IRB Approval

Institutional Review Board
Hamline University
1536 Hewitt Ave, MS-B1807
Saint Paul, MN 55104-1284
IRB Chair: Lisa Ferguson-Stegall, PhD
651-523-2147 * IRB@hamline.edu

Dec. 10, 2018

To: Heidi Dunlap, Student Researcher

CC: Kimberly Hartung, Faculty Advisor

Protocol title: How does induction impact retention?: A case study

In accordance with Federal Regulations for review of research protocols, the Hamline University Institutional Review Board has reviewed the above referenced protocol and made the following determination.
Your protocol has been approved on Dec. 10, 2018.

This approval is under Expedited Category 7, for Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The IRB approval number that should be noted in your written project and in any major documents alluding to the research project is:

2018-12-18ET

Please use the attached approved informed consent document, which references the approval number and date on the document.

Your IRB approval expires one year from the date above. The IRB would like to stress that subjects who go through the informed consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

As the principal investigator of this project, you are required to:

(1) Inform the IRB of any proposed changes in your research that will affect human subjects. This is done by submitting an Amendment form, which is found on the IRB website, to the IRB Chair at IRB@hamline.edu. Changes may not be initiated until written IRB approval is received.
(2) Report any unanticipated problems and adverse events to the IRB as soon as they occur.

(3) Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to take part.

(4) Insure that only persons formally approved by the IRB enroll subjects.

(5) Use only a currently approved consent form (remember approval periods are for 12 months or less).

(6) Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of participants and information. This includes requiring that all individuals who recruit subjects, obtain informed consent, and/ or participate in data collection or analysis complete the Hamline IRB Training Module.

(8) Submit a Continuing Review Report for continuing review by the IRB. Federal regulations require IRB review of ongoing projects no less than once a year. As a courtesy, a reminder notification be sent to you one month before your expiration date. Please note, however, that it is the primary responsibility of the PI to remember the renewal date for your protocol, and to not exceed the expiration date in collection of any information. If you do not receive a reminder from the IRB about your upcoming continuing review, it is still the responsibility of the PI to submit the Continuing Review Report before the expiration period.

(9) Notify the IRB when the study has been completed and complete the Final Report form.

(10) Please help us help you by including the above protocol number on all future correspondence relating to this protocol.

(11) Notify us of any changes in your contact information.

I wish you success with your project. If you have any questions, you may contact me at IRB@hamline.edu.

Sincerely,

Lisa Ferguson-Stegall, PhD
Hamline University IRB Chair
Appendix I

Reflecting Conversation Map

Teacher: ________________  Coach: ________________  Date: _________

Reflecting Conversation Map

What is your IMMEDIATE REACTION or IMPRESSION to what happened in the video, article, group discussion, classroom observation and yourself?

As you focus on the lesson what specific DETAILS or DATA do you recall that supports your initial impression?

WHAT FACTORS most influenced your impressions of what happened in the video, article, group discussion, classroom observation and yourself?

What PERSONAL LEARNING or NEW UNDERSTANDING are you taking from our time together that you would like to carry forward into the future?

What COMMITMENTS are you ready to make with yourself so you are personally assured of moving in your work today and in the future?

Take aways – reflect on the coaching process
Appendix J

Planning Conversation Map

Teacher: ____________________ Coach: ____________________ Date: ____________

Planning Conversation Map

What are your **LEARNING GOALS** for this lesson or event?

What **INDICATORS** or **EVIDENCE** will you want to collect to know that you were successful in reaching your goals?

What **STRATEGIES** or **ACTIVITIES** will need to happen to support you in reaching your goal?

What might be a **PERSONAL LEARNING** you want to explore through this lesson or event?

What **DATA** would you like the coach to collect that could be helpful in gathering evidence around your personal learning or success in reaching your goals?

Is there anything in particular that you want the coach to know prior to observing the lesson or event?

**Take aways** – reflect on the coaching process