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Novice Teachers as Teacher Leaders: A Mixed Methods Study of Years of Experience and Teacher Leadership Development

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NOVICE TEACHERS AS TEACHER LEADERS: A MIXED METHODS STUDY OF YEARS OF EXPERIENCE AND TEACHER LEADERSHIP DEVELOPMENT

by

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ABSTRACT

The aim of this research was to address the gap in the literature on novice teacher leadership development from novice teachers' perspectives. An explanatory sequential mixed methods design was used to identify the differences that years of experience may or may not have on southern US public school novice teachers' teacher leadership identity, readiness, and engagement. Distributed leadership theory provided the theoretical lens and Sinha and Hanuscin's (2017) Teacher Leadership Development Process Model was used as the conceptual framework.

Survey data were collected from 306 full-time pre-k through fifth grade teachers from 71 public elementary schools. One-way ANOVAs measured statistical differences between four teacher experience level subgroups. Factorial ANOVAs identified interactions between demographic and experience variables. A single-case study with embedded units examined the perceptions of novice teachers, experienced peer teachers, and administrators. Interview, observation/reflection, and online data were collected and analyzed.

Results showed that years of teaching experience have a significant effect on teacher leadership identity and engagement but not on readiness. The teacher leadership readiness factor of teacher autonomy is significantly affected by type of teaching program, but that effect is not dependent on years of experience. When combined, years

of teaching and number of schools taught at significantly affect teacher leadership identity. These combined variables also significantly affect teacher leadership engagement in school change/improvement, school/district curriculum work, and professional development of colleagues. Additionally, novice teacher leadership development is significantly affected by school location, achievement levels, leadership style, culture, team dynamics, acceptance, and support.

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DEDICATION

I would like to dedicate this dissertation to my amazing family. First, to my sweet girls, Addalynn and Anniston, who sacrificed so many weekends and after-school activities so their mommy could stay home and work. You never once complained and were always extremely supportive, bringing me more coffee and giving me hugs, kisses, and encouragement when I needed it most! I could not have done this without you two bright, beautiful, and selfless little girls. Thank you for being the best daughters I could have ever hoped for.

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Finally, I want to dedicate this work to the loving memory of my mother, Matilda Ramos Carranza Clark. She would have been so tremendously proud of me for accomplishing this life-long goal. I know she was with me each step of the way, and I can just imagine how much she is bragging about me in Heaven!

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ACKNOWLEDGMENTS

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I also want to send a very special thank you to Dr. Lorraine Jacques, my methodologist, for dedicating weekends to my research and always responding to my questions with thoughtful answers and helpful feedback. The knowledge you gave me on statistical analysis is invaluable and has completely changed how I look at data. Thank you for empowering me to believe I could successfully tackle a mixed methods study. You are a fantastic teacher, and I will be forever grateful for having you as an instructor and a friend.

CHAPTER 1

INTRODUCTION

In the past, it was a common belief that for teachers to become leaders and affect a broader range of teachers and students, they had to leave their classrooms and seek a position as a school administrator (Katzenmeyer & Moller, 2009). However, new perspectives on a school leadership style that embraces the distribution of leadership throughout the school organization have led to the emergence of teacher leadership (Harris & Muijs, 2005; Katzenmeyer & Moller, 2009). Since it was first introduced as a key term in the 1980s, teacher leadership has become known as an essential organizational component that can increase school effectiveness by empowering teachers (Harris & Muijs, 2005; Katzenmeyer & Moller, 2009; Wenner & Campbell, 2017; York-Barr & Duke, 2004). Today, teachers engage in leadership within and beyond their classroom and school walls and make enormous contributions as influencers for improved educational practice (Harris & Muijs, 2005; Katzenmeyer & Moller, 2009; Spillane, 2006).

Although teacher leadership is an admirable goal for any educator to seek (Berry et al., 2013), many administrators and experienced peer teachers perceive teacher leadership roles to be best filled by educators with advanced levels of years of teaching

experience, content knowledge, and instructional practice (Angelle & Schmid, 2007; Carver & Meier, 2013; Meirink et al., 2020; Muijs et al., 2013; Tahir et al., 2020). However, experts of the field agree that novice or beginning teachers also have a lot to offer in the form of leadership potential with the positive levels of enthusiasm and excitement that they bring to the teaching profession (Cheng & Szeto, 2016; Nolan & Palazzolo, 2011; Pangan & Lupton, 2015). Many researchers have found that teachers of all experience levels can effectively engage in teacher leadership roles (Carver & Meier, 2013; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Muijs et al., 2013; Nolan & Palazzolo, 2011; Scales & Rogers, 2017; Szeto & Cheng, 2018). In fact, recent studies have shown that novice teachers are ambitious professionals who desire more opportunities to exercise leadership in their schools (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013; Nolan & Palazzolo, 2011). Yet, novice teachers are often overlooked for teacher leadership roles (Pangan & Lupton, 2015) and perceived as incapable of teacher leadership because of their lack of years of professional teaching experience (Carver & Meier, 2013; Meirink et al., 2020; Muijs et al., 2013; Tahir et al., 2020).

Researchers suggest that novice teachers should be seen as new professionals with "energetic, innovative, and unclouded" perspectives (Pangan & Lupton, 2015, p. 120) who have the potential to be valuable change-agents in their schools (Mthiyane & Grant, 2013; Szeto & Cheng, 2018). However, after decades of empirical research on the teacher leadership phenomenon (Wenner & Campbell, 2017; York-Barr & Duke, 2004), the literature on novice teachers' development as teacher leaders is limited (Carver, 2016;

Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020).

Research Problem

The research problem under investigation in this study was novice teacher leadership development from novice teachers' perspectives (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017). I sought to take a more in-depth look at how novice teachers are developing as teacher leaders and engaging in teacher leadership practice. Through this research, I hoped to provide new evidence to support the equal distribution of teacher leadership roles to all teachers, not just those with higher levels of professional teaching experience.

There is a significant need for additional research on the topic of novice teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020). Scholars conducting recent empirical teacher leadership research agree that further studies are needed on novice teacher leadership from the perspectives of novice teachers (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017), as well as what school contexts foster novice teacher leadership development (Lai & Cheung, 2015; Scales & Rogers, 2017). Additional studies are needed on how experienced peer teachers and administrators perceive novice teacher leadership in schools and districts (Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Szeto & Cheng, 2018) and how teachers' ages or years of professional teaching experience affect teacher leadership development (Carver, 2016; Klein et al., 2018). Finally, there is a need to examine further who practicing teachers perceive as teacher leaders and why (Jacobs et al., 2016; Tahir et

al., 2020). I situated my study within this need for additional research on novice teacher leadership development. The purpose of my research was to identify the differences that may or may not exist between southern US public elementary school novice teachers' years of professional teaching experience and their perceptions of teacher leadership, their readiness for teacher leadership, and their engagement in informal and formal teacher leadership roles.

I used a mixed methods research design to collect and analyze quantitative survey data and qualitative case study data (Creswell & Plano Clark, 2018). My theoretical lens was distributed leadership theory, which focuses on leadership practice through interactions between school leaders, followers, and their situation (Spillane, 2006). Distributed leadership serves as an appropriate theoretical framework because it is a lens that "focuses on *how* leadership practice is distributed among formal and informal leaders" (Harris & Muijs, 2005, p. 31). I used the Teacher Leadership Development Process Model (Sinha & Hanuscin, 2017) for my conceptual framework. This model establishes the processes that coincide with leadership development in teachers, which are identified as teacher leadership identification, readiness, and engagement. These three processes were the dependent variables in my quantitative research questions. The independent variables in my research questions were the participants' years of professional teaching experience.

Research Questions

Four research questions guided my study in adding to the empirical research on novice teacher leadership development. These questions were:

RQ1: What difference, if any, exists between teachers' years of professional teaching experience and their identification as teacher leaders?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their identification as teacher leaders.

RQ2: What difference, if any, exists between teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles.

RQ3: What difference, if any, exists between teachers' years of professional teaching experience and their engagement in teacher leadership activities?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their engagement in teacher leadership activities.

RQ4: How do public elementary school novice teachers perceive teacher leadership roles and teacher leadership engagement in their schools or districts?

These research questions were directly connected to my research problem. They specifically focused on the components that have been identified as key factors in teacher leadership development through the conceptual framework. Examining novice teachers'

levels of teacher leadership identification, readiness, and engagement in relation to their years of teaching experience provided evidence of how years of experience do or do not affect novice teacher leadership development and engagement.

In the quantitative phase of my research, I used Qualtrics to generate a 35-question survey that was electronically sent to a population of public elementary school teachers. The survey contained 25 questions from Katzenmeyer and Moller's (2009) Teacher Leadership Readiness Instrument to measure participants' teacher leadership readiness levels. I tested the validity and reliability of the instrument by conducting an exploratory factor analysis and running internal consistency tests. The additional survey questions were used to collect demographic and experience information and measure teacher leadership identification and engagement levels. The qualitative phase of the study was conducted as a follow-up to the quantitative results to help explain interesting findings of the relationships between years of professional teaching experience and levels of teacher leadership identification, readiness, and engagement. An instrumental case study approach (Stake, 1995) was used with a single-case study with embedded units' design (Yin, 2018) to examine how and why novice teacher leadership development and engagement is or is not occurring within multiple school leadership contexts.

Assumptions, Limitations, and Delimitations

I conducted my mixed methods study with some assumptions, limitations, and delimitations. First, I assumed that only public elementary school teachers who taught pre-k through fifth grade took part in the qualitative phase of the study. There was no qualifying question within the survey; however, the recipients were asked in the email to only complete the survey if they were part of the qualifying study population. The second

assumption of my research was that all survey respondents fully understood the questions asked and provided honest expressions of their involvement in and readiness for teacher leadership roles. Third, it was assumed that my involvement in teacher leadership roles in public elementary schools did not present any bias in the findings of my study. Finally, it was assumed that my role as a public elementary school instructional coach in one of the participating districts did not affect the study results, as I professionally knew three of the participants from the qualitative phase of the study. More information regarding my role as the researcher and the measures taken to increase my study's trustworthiness and lessen researcher bias is presented in the methodology chapter.

Limitations of the research included the generalizability of the findings to only the intended population of the study as full-time public elementary school teachers who teach pre-k through fifth grade in the US. Another limitation to my research was the COVID-19 global pandemic that was ongoing throughout my study. The effects of the pandemic on elementary public school systems limited how the teacher participants could engage in teacher leadership activities. Specifically, safety protocols and restrictions enforced at the state, district, and school site levels decreased the level of teacher leadership opportunities available to the participants. Finally, the study was limited by surveys being sent out in various ways depending on each district superintendent's preference. I had varying levels of control over who my email was forwarded to and who had access to the survey link.

There were two delimitations of research. First, only public elementary school teachers were included in the research. I did not collect data from teachers who taught at

the middle or high school levels. The second delimitation was that private, charter, and online virtual schools were excluded from the research.

Definitions of Key Concepts

The following terms pertaining to novice teacher leadership development will provide a clearer understanding of my mixed methods study.

Alternative Certification Program – A nontraditional, degree or non-degree, teacher preparation program that a prospective teacher can complete to gain his/her teaching certification

College of Education Program – A traditional, bachelor's degree, teacher preparation program that a prospective teacher can complete to gain his/her teaching certification

Formal Teacher Leadership – When teachers hold formal leadership titles or engage in leadership roles as a teachers' union representative, department head, curriculum specialist, teacher mentor, or member of the site-based management team, such as grade level team leader or district team leader (York-Barr & Duke, 2004)

Informal Teacher Leadership – When teachers do not hold formal leadership titles but engage in leadership by participating in teacher mentoring, coaching colleagues through instructional problem-solving, collaborating with peers on pedagogical issues, modeling professional reflection, encouraging parent and community involvement, and working toward school improvement (York-Barr & Duke, 2004)

Novice Teachers – Full-time teachers from public elementary schools who have 0 to 5 completed years of professional teaching experience

Rural Area- A countryside or area outside of towns and cities with a low population density ("Rural area," 2020)

Suburban Area – A residential area that exists as part of a city or urban area or within commuting distance of a city ("Suburb," 2020)

Teacher Leadership – When teachers influence other teachers to improve teaching practices and act as leaders in their classrooms and schools by contributing to the teaching and learning of students and teachers (Katzenmeyer & Moller, 2009)

Teacher Leadership Engagement – Teachers' involvement in formal and informal teacher leadership activity (Sinha & Hanuscin, 2017)

Teacher Leadership Identity – Teachers' perceptions of themselves and others concerning teacher leadership (Sinha & Hanuscin, 2017)

Teacher Leadership Readiness – Teachers' views and ideas about teacher leadership, teacher leadership roles, and teacher leadership practice (Sinha & Hanuscin, 2017)

Urban Area – A highly populated area with many human structures ("Urban area," 2020)

CHAPTER 2

LITERATURE REVIEW

The purpose of my research study was to understand better how novice teachers are developing as teacher leaders and engaging in teacher leadership roles. The following review of the literature provides an overview of recent studies pertinent to understanding the state of the research field on novice teacher leadership development. To effectively propose the need for the current research, an extensive review was necessary to determine what patterns, strengths, and weaknesses had been previously identified within the teacher leadership literature. Thus, this literature review contains a thorough examination of the critical areas of teacher leadership development and engagement.

The process of my review of the literature included an extensive search for peer-reviewed empirical research articles from scholarly journals. To access the most recent and relevant teacher leadership research, I set strict date parameters to include research published between 2010 and 2021. The databases used to search for empirical teacher leadership articles included the ERIC online index, the Google Scholar online search engine, and the EBSCO Discovery Service from Louisiana Tech University's online library website. I explored three pathways of empirical studies, including teacher leadership development, teacher leadership practices, and teacher leader relationships. For the first research path of teacher leadership development, the key terms I used for advanced searches included novice or beginning teacher leadership development,

identity, and readiness. The key terms for the second research path of teacher leadership practices included novice or beginning teacher leadership practices, roles, engagement, and enactment. Then, for the third research path of teacher leader relationships, the key terms used in advanced searches included novice or beginning teacher leader relationships, perceptions, and perspectives. The body of literature that I found pertaining explicitly to novice teacher leadership development was small. My advanced searches for articles containing *novice teacher leadership development* in EBSCO provided only one result, ERIC provided zero results, and Google Scholar provided only one result. To provide a broader foundation of relevant studies, scholarly research findings, and implications for further research for the current review of the literature, results from more inclusive searches without the keywords *novice* or *beginning* were utilized to scan for additional articles. These limited results for current literature further emphasize a need for additional research relating to novice or beginning teacher leaders.

The literature review is organized into categories derived from the research analysis. In close alignment with the research focus of my study, the literature review begins with an overview of the chosen theoretical framework and other frameworks commonly used in teacher leadership research. Next, the conceptual framework is introduced, accompanied by a detailed account of four alternate frameworks considered for the teacher leadership research. An overview of the literature is presented in three sections: teacher leadership identification, teacher leadership readiness, and teacher leadership engagement. The first section, focused on teacher leadership identification, contains a substantial analysis of five scholarly research articles. Each research article is presented as a separate subsection to allow for a high level of organization. The second

section contains the analysis of four articles focused on teacher leadership readiness, followed by the third section, focused on teacher leadership engagement, which consists of an analysis of five research articles. Finally, a rigorous conclusions section provides an examination of the overall state of the field and an analysis and evaluation across all the included research topics.

Theoretical Framework

Distributed leadership was chosen as the theoretical framework to guide my research, which many scholars have identified as a theoretical foundation of teacher leadership (Gronn, 2002; Spillane, 2006; Spillane et al., 2001). Specifically, Spillane's (2006) pragmatic perspective of distributed leadership served as the theoretical lens, which focuses on leadership practice through interactions between school leaders, followers, and their situation. The situation refers to tools, routines, and structures that enable or constrain leadership practice (Spillane, 2006). Theoretically, Harris and Muijs (2005) describe distributed leadership as "multiple sources of guidance and direction, following the contours of expertise in an organization, made coherent through a common culture" (p. 31). It is a lens that "focuses on *how* leadership practice is distributed among formal and informal leaders" (Harris & Muijs, 2005, p. 31). Distributed leadership first appeared as a leadership approach in the 1950s when C.A. Gibb (1954), an Australian psychologist and leadership theorist, presented that leadership can be displayed in a distributed pattern (Gronn, 2002; Harris & Muijs, 2005). The concept has gained recent popularity as a theoretical lens and has been studied among multiple educational science researchers (Harris et al., 2007; Harris & Muijs, 2005; Jambo & Hongde, 2020; Lumby, 2013, 2016). Within the literature, many leadership scholars recognize the work of Gronn

(2002) and Spillane et al. (2001) as the primary sources for contemporary analysis of distributed leadership (Fitzsimons et al., 2011; Harris et al., 2007; Harris & Muijs, 2005).

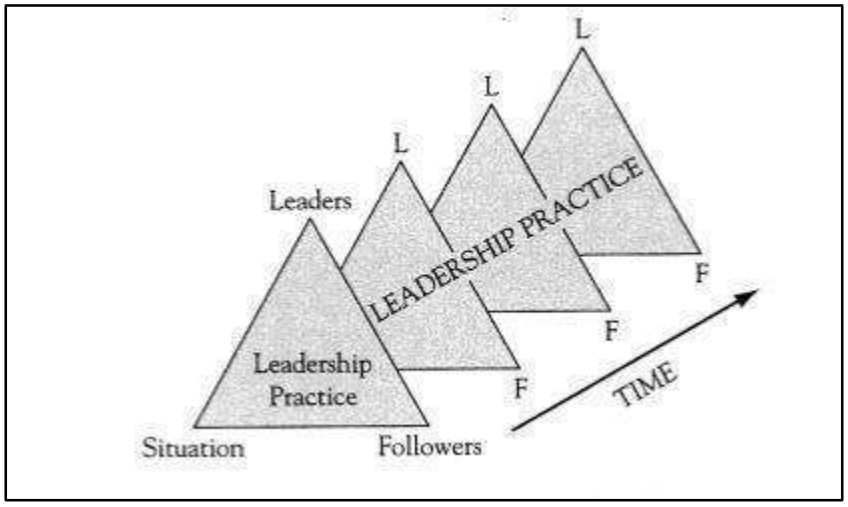
Gronn (2002) based his research on the work of Gibb (1954) and sought to provide a framework to examine distributed organizational leadership, arguing "that leadership would be better served by understandings more closely connected to the realities of workplace practice" (p. 441). Gronn asserted that the unit of analysis in leadership research should include forms of distributed practice. His definition of distributed leadership includes "spontaneous collaboration, intuitive working relations, and institutionalized practices" among numerous individuals participating in leadership activity (Gronn, 2002, pp. 446-447).

In related work, Spillane et al. (2001) grounded their distributed leadership research on activity theory (Leontiev, 1981), as well as distributed and situated cognition (Hutchins, 1995), to frame further investigations of leadership practice. Spillane et al. conducted a seminal theory-building mixed methods study to explore leadership from a distributed perspective. At Northwestern University, the researchers conducted their in-depth analysis of leadership practice through a 5-year longitudinal study involving urban Chicago elementary schools (Spillane, 2006; Spillane et al., 2001). The methods used in the study included "ethnography, structured observations, structured and semi-structured interviews, teacher and principal questionnaires, social network surveys, and videos of leadership in schools" (Spillane, 2006, p. 15). Their findings indicated that human activity is distributed among several actors and artifacts within a situation (Spillane et al., 2001). Based on those findings, the researchers developed a conceptual model of leadership practice from a distributed perspective, addressing leadership practice within

context (see Figure 2.1) (Spillane et al., 2004). Within this framework, leadership practice is represented by a triangle that encompasses all three essential elements of distributed leadership, including leaders, followers, and the situation (Spillane, 2006; Spillane et al., 2004). Each triangle in the framework represents the interaction among these elements at a particular time since "the performance of a leadership routine involves multiple interactions" (Spillane, 2006, p. 14). Thus, multiple triangles emphasize the importance of time amongst those interactions (Spillane, 2006).

Figure 2.1

Leadership Practice from a Distributed Perspective



Note. This figure illustrates Spillane's (2006) conceptual model of distributed leadership.

Before choosing distributed leadership theory as the theoretical lens, I first considered the theory's assumptions that could hinder a clear understanding of the research problem. To begin, some authors argue that there are epistemological assumptions in distributed leadership studies (Fitzsimons et al., 2011; Harris et al., 2007; Lumby, 2016). For example, in a review of the literature, Harris et al. (2007) found that

few researchers had explored the empirical evidence for the assertions being made about the theory. The researchers also claimed that distributed leadership's central weakness is that the definition is widely varied and has become used as a "convenient way of labeling all forms of shared leadership activity" (Harris et al., 2007, p. 338). However, Spillane (2006) presented that distributed leadership is more than shared leadership. Distributed leadership is not defined as leadership that is shared among multiple individuals; instead, "it is the collective *interactions* among leaders, followers, and their situation that are paramount" (Spillane, 2006, p. 4). Even so, Jambo and Hongde (2020) found that distributed leadership has been incorrectly used interchangeably with shared, collective, collaborative, participatory, dispersed, and democratic leadership by many empirical researchers over the past two decades.

Other authors have proposed a conflict with distributed leadership theory in that it places emphasis on "practice and context" but does not account for the "emotional dynamics at play" when role relations are shifted within the leadership framework (Fitzsimons et al., 2011, p. 324). This sentiment is shared by Lumby (2013), who poses significant opposition to distributed leadership, criticizing the lack of social justice embedded in the theory. Lumby (2016) vehemently claims that distributed leadership theory projects blindness to race and gender equality in educational leadership and compares the theory to religion in the way that it "offers the illusion of great empowerment" through the promotion of inclusive leadership practice (p. 164).

Despite some researchers' opposition to distributed leadership theory, Wenner and Campbell (2017) found in their review of 54 empirical research articles on teacher leadership that it was the most common theoretical framework used to inform teacher

leadership studies. The concept of distributed leadership includes several elements related to educational environments (Göksoy, 2015). Because of this, educational science researchers have used the distributed lens to guide their teacher leadership studies (Cheng & Szeto, 2016; Klein et al., 2018; Tahir et al., 2020). However, other theoretical lenses have been used by recent scholars in teacher leadership research. Some of these include broad conceptualizations of teacher leadership or teacher leadership development (Carver & Meier, 2013; Jacobs et al., 2016; Lai & Cheung, 2015; Muijs et al., 2013; Nolan & Palazzolo, 2011; Scales & Rogers, 2017) and frameworks derived from the work of York-Barr and Duke (2004). Studies have been conducted on teacher leadership topics using a lens of York-Barr and Duke's dimensions of practice (Sinha & Hanuscin, 2017), York-Barr and Duke's model of teacher leadership (Fairman & Mackenzie, 2015), and York-Barr and Duke's concept of informal teacher leadership (Meirink et al., 2020). Additionally, Mezirow's theory of transformative learning has been used in recent teacher leadership research (Carver, 2016), as well as the Teacher Leader Model Standards developed in 2011 by the Teacher Leadership Exploratory Consortium (Cosenza, 2015). Ultimately, none of these lenses were chosen for the current study because they failed to align with the aim of my research.

A distributed leadership theoretical framework was the most appropriate theoretical lens for my study because it allowed for exploring leadership tasks being enacted by formal and informal leaders (Spillane et al., 2004). After all, how these leaders work together to perform formal and informal leadership tasks is the social distribution of leadership practice (Spillane et al., 2004). Furthermore, Spillane's (2006) framework in Figure 2.1 was used to guide my study because it "offers theoretical

grounding for studying day-to-day leadership practice, enabling investigations of practice to go beyond documenting lists of strategies that leaders use in their work" (Spillane et al., 2004, p. 28). While exploring the research problem of how novice teachers develop as teacher leaders and engage in formal and informal leadership roles, a distributed leadership lens allowed for further investigation of how those roles were extended between novice teachers, administrators, and experienced teachers (Spillane, 2006). The distributed leadership theory also informed my discussion of other studies on novice teacher leadership development and formal and informal teacher leadership engagement in schools.

Conceptual Framework

In addition to a distributed leadership theoretical lens, I chose Sinha and Hanuscin's (2017) Teacher Leadership Development Process Model as the conceptual framework for my study. The Teacher Leadership Development Process Model serves as a relevant conceptual framework because it establishes the processes contributing to teacher leadership development (Sinha & Hanuscin, 2017). Sinha and Hanuscin developed this conceptual framework from their research on teacher leaders' development at different stages in their careers.

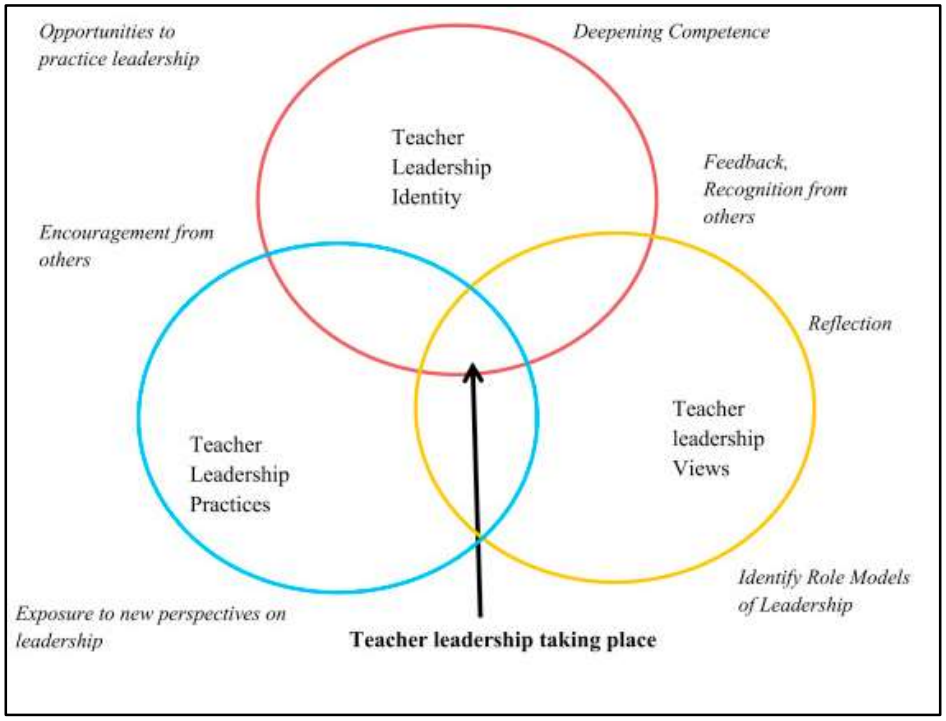
Sinha and Hanuscin (2017) conducted a multiple case study to determine how leadership developed in three high school science teachers with different years of professional teaching experience. The researchers adopted a conceptual lens from York-Barr and Duke's (2004) dimensions of teacher leadership practice and teacher leadership identity (Krause, 2004) that focused on the teachers' social roles and role identities. The participants were purposefully chosen from 86 teachers participating in a 3-year Science

Teachers as Leaders professional development training. Sinha and Hanuscin found that teacher leadership development was gradual and could be characterized by the connection between the teachers' views of teacher leadership, engagement in teacher leadership, and identity development as teacher leaders. Moreover, the researchers found that teacher leadership could occur when all three of these aspects of leadership development were aligned. These findings led to Sinha and Hanuscin's development of the Teacher Leadership Development Process Model.

The Teacher Leadership Development Process Model (see Figure 2.2) focuses on the processes that coincide with teacher leadership development, consisting of the three major components: individual views of teacher leadership, engagement in teacher leadership practices, and teacher leadership identity development (Sinha & Hanuscin, 2017). Sinha and Hanuscin (2017) also identified outside factors contributing to teacher leadership development in the model. These factors could include opportunities to practice leadership, encouragement from others, exposure to new perspectives on leadership, feedback and recognition from others, reflection, and identifying leadership role models (Sinha & Hanuscin, 2017).

Figure 2.2

Teacher Leadership Development Process Model



Note. This figure illustrates Sinha and Hanuscin's (2017) model of teacher leadership development.

When considering the Teacher Leadership Development Process Model as a conceptual framework for my study, I explored the model's assumptions that could prevent a clear understanding of my research problem. Sinha and Hanuscin (2017) proposed their model as a tool for studying teacher leadership development through the alignment of leadership views, practices, and identity. In my literature search, I found no empirical research studies that used the entire Teacher Leadership Development Process Model as a conceptual framework. However, Wenner and Campbell (2018) did use the teacher leadership identity component of the model as a strong influence in their qualitative research on teachers' participation in teacher leadership. Wenner and

Campbell's study explored how communities of practice (CoPs) could shape teacher leadership identities. Within their discussion of findings, the researchers agreed that Sinha and Hanuscin presented a "valid perspective in how they define teacher leadership identity" (Wenner & Campbell, 2018, p. 15). From their findings, Wenner and Campbell further defined teacher leadership identity as "thick" for teachers who deeply regard themselves as leaders and "thin" for teachers who occasionally regard themselves as leaders. The researchers proposed that teachers who have a "thin" teacher leadership identity may not have had time to align their teacher leadership views with teacher leadership practices, as suggested by Sinha and Hanuscin (Wenner & Campbell, 2018).

Because the Teacher Leadership Development Process Model had not been used in its entirety in a previous empirical study, further research was needed using the model to add its validity as a conceptual framework (Sinha & Hanuscin, 2017). Specifically, Sinha and Hanuscin (2017) suggested that further research was needed using the model with a more significant number of teachers from different teaching stages. My research study contributed to this conceptual model's validity by using it to frame a study specifically focused on teachers in the early stages of their teaching careers. Furthermore, my mixed methods research design allowed many participants to be involved through survey distribution and interviews.

Before finalizing my decision to use Sinha and Hanuscin's (2017) model, I considered four other frameworks associated with teacher leadership development and engagement for my research. First, I reviewed Angelle and DeHart's (2016) Four-Factor Model of Teacher Leadership (see Figure 2.3). Angelle and DeHart developed their framework using the Teacher Leadership Inventory (TLI). Their research focused on

presenting quantitative evidence of a reliable instrument for assessing teacher leadership. The Four-Factor Model frames teacher leadership into the following categories: sharing expertise, sharing leadership, supra-practitioner, and principal selection (Angelle & DeHart, 2016). Angelle and DeHart assert that their model provides educational researchers with a representation of teachers' perceptions of teacher leadership in a school context.

Figure 2.3

The Four-Factor Model of Teacher Leadership

Note. This figure illustrates Angelle and DeHart's (2016) model of teachers' perceptions of teacher leadership.

The second conceptual framework I considered for my study was Fairman and Mackenzie's (2012) Spheres of Teacher Leadership Action for Learning (see Figure 2.4). Their model stems from York-Barr and Duke's (2004) theory of action for teacher leadership and consists of nine spheres aligned "in a circle to depict the non-linear, non-continuous activity of teacher leaders" (Fairman & Mackenzie, 2012, p. 232). The nine spheres of teacher leadership in Fairman and Mackenzie's model are described as

teachers engaging in learning about their practice, experimenting and reflecting, sharing ideas, collaborating and reflecting on collective work, interacting through relationships to re-culture their schools, building support and organizational capacity, engaging in the school-wide improvement and distributed leadership, collaborating with the broader community, and sharing work with the professional community. The researchers maintain that their model "describes where and how teachers, individually or collectively, informally or formally, act and influence other teachers to improve student learning" (Fairman & Mackenzie, 2012, p. 232).

Figure 2.4

Spheres of Teacher Leadership Action for Learning

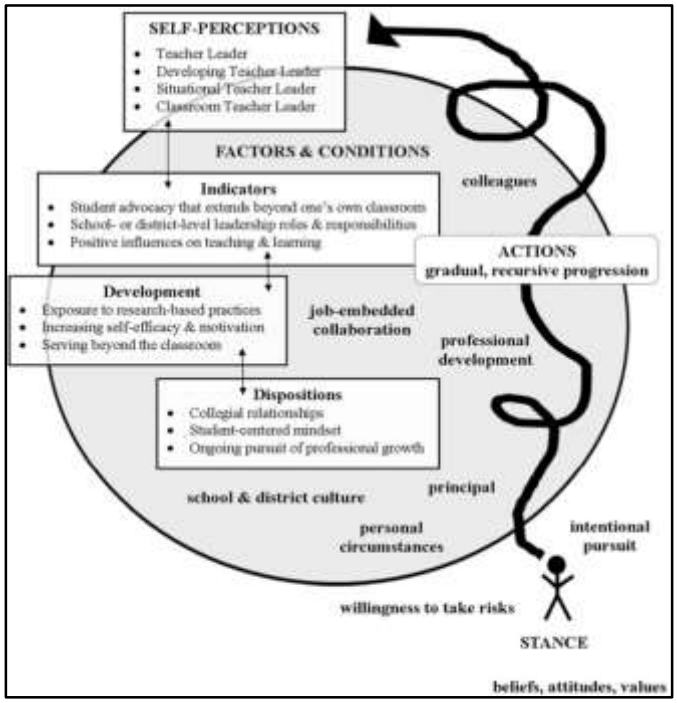
Note. This figure illustrates Fairman and Mackenzie's (2012) model of how teacher leaders improve student learning.

The third teacher leadership conceptual framework that I considered was developed by Hunzicker (2017), who conducted a qualitative study "to provide a visual

model conceptualizing how teachers progress from teacher to teacher leader, including factors and conditions that influence this progression" (p. 9). With a grounded theory approach, Hunzicker's study consisted of eight elementary, middle, and high school teachers who had recently graduated from a science, technology, engineering, and mathematics (STEM) education master's program. The researcher found that the participants had self-perceptions of teacher leadership engagement in four developmental stages: teacher leader, developing teacher leader, situational teacher leader, and classroom teacher leader. Based on these findings, Hunzicker developed the Teacher Leader Progression and Influences Model (see Figure 2.5). The model illustrates how teachers pursue or accept teacher leadership opportunities and progress in their self-perception as a teacher leader. When teachers face challenging circumstances or unsupportive school cultures, they are more likely to gradually progress through the development process (Hunzicker, 2017).

Figure 2.5

Teacher Leader Progression and Influences Model

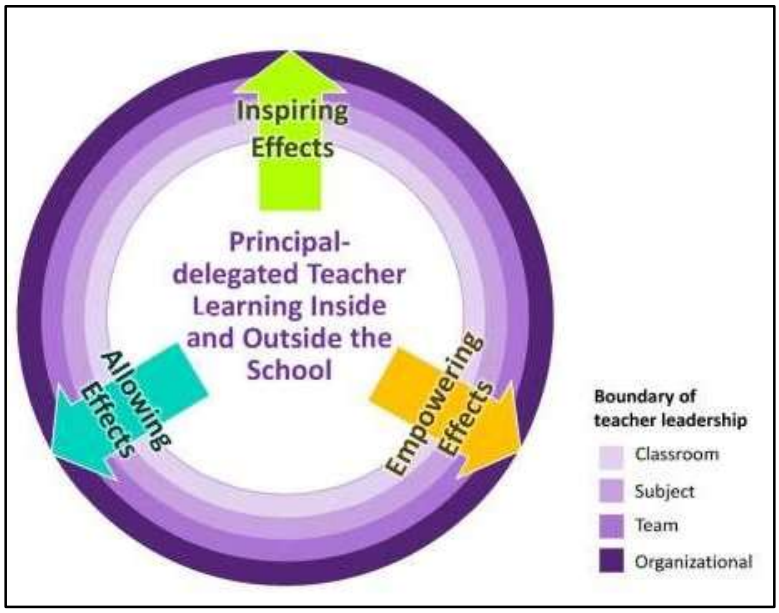


Note. This figure illustrates Hunzicker's (2017) model of how teachers progress as teacher leaders.

The final conceptual framework that I considered for my study was Szeto and Cheng's (2018) framework of principal-teacher interaction efforts on teacher leadership development (see Figure 2.6). Szeto and Cheng created their framework to examine how principal-teacher interactions affect novice teacher leadership development. The work of several teacher leadership scholars was used to contribute to the formation of their model, including Muijs et al.'s (2013) four main boundaries of teacher leadership. The boundaries of teacher leadership depicted in the model include classroom, subject, team, and organization, which were also used as an analytic tool for their research (Szeto & Cheng, 2018).

Figure 2.6

Framework of Principal-Teacher Interaction Efforts on Teacher Leadership Development



Note. This figure illustrates Szeto and Cheng's (2018) model of how principal-teacher interactions affect novice teacher leadership development.

Ultimately, Sinha and Hanuscin (2017) Teacher Leadership Development Process Model best aligned as a conceptual lens for my study because it succinctly establishes the processes that contribute to teacher leaders' development. Throughout the literature review, the model was used as a frame for exploring recent empirical research on novice teacher leadership by focusing on the three significant aspects of leadership development: teacher leadership views, identity, and practices.

The first topic that I explored in my review of the literature was teacher leadership identity. This aspect focused on novice teachers' perceptions of themselves and others concerning teacher leadership (Sinha & Hanuscin, 2017). Next, I explored teacher leadership readiness in the literature by focusing on teacher leadership views. Sinha and

Hanuscin (2017) described teacher leadership views as a component of teacher leadership development that encompasses a teacher's initial ideas about teacher leadership. Thus, novice teachers can begin to measure their readiness for leadership practice by exploring their ideas and views of teacher leadership (Angelle & DeHart, 2011; Katzenmeyer & Moller, 2009; Sinha & Hanuscin, 2017). The third topic I explored in the literature was teacher leadership engagement. This topic focused on the teacher leadership practices aspect of the model. Sinha and Hanuscin described this development aspect as the "various activities teachers do as they develop as leaders" (p. 368). Exploring each of these topics and using them as a guide in my research provided a clear foundation for assessing how the Teacher Leadership Development Process Model aligned with novice teachers' leadership development.

Teacher Leadership Identification Research

In this section, the topic of teacher leadership identification refers to teachers' perceptions of themselves and others concerning teacher leadership (Sinha & Hanuscin, 2017). The five significant research studies within this topic focus on teacher leadership identification concerning how teachers view teacher leadership, define teacher leadership, perceive themselves as teacher leaders, and how relationships with stakeholders affect their teacher leadership perceptions. Most of the research in this category consists of qualitative case studies, with only one quantitative research study. Participants include novice teachers, experienced teachers, administrators, district supervisors, and university mentors throughout the five studies. The studies' teacher participants are from elementary, middle, and high schools in the US and Hong Kong, with varying experience

and leadership roles. I presented the research articles discussed in the overview from the most significant to the least concerning teacher leadership identification findings.

To begin, Nolan and Palazzolo (2011) conducted a quantitative research study to explore how novice teachers view teacher leadership. Using a teacher leadership lens, the researchers sought to determine what the beginning teachers viewed as leadership activities. They also explored if the novice teachers felt that it was their responsibility to take on leadership roles and to what degree they were involved in classroom or school-level decision making. Nolan and Palazzolo used a convenience sample of 330 novice teachers from New Jersey and New York, all with less than 3 years of professional teaching experience. The researchers justified their purposeful sampling by explaining the study's exploratory aim and the low numbers of untenured teachers available. The questionnaire given to participants contained 30 close-ended items to explore involvement in school and classroom decision making and three sets of open-ended items to explore opinions of novice teachers' role in teacher leadership activities. The questionnaires were placed in the teachers' boxes at their school with chocolate, and three attempts were made to collect them to increase the chances of a high response rate.

The researchers used open, axial, and selective coding to analyze responses from the open-ended items and create categories from results (Nolan & Palazzolo, 2011). Nolan and Palazzolo (2011) labeled one category as "leadership for advancement" to describe novice teachers' perceptions of leadership activities that included committee memberships, grant writing, volunteering for student clubs or events, and working with parent groups (p. 311). The second category was labeled "leadership for advocacy" to describe novice teachers' perceptions of leadership activities that included connecting

with community organizations to provide student services and support, working with parents to support at-risk students, and addressing problems with student groups. The researchers offered helpful tables within the article that displayed the data collected and described how the research questions aligned to questionnaire items.

Nolan and Palazzolo (2011) found that novice teachers consider most leadership opportunities to be aligned with "leadership for advancement" and "leadership for advocacy" (p. 311). They also found that most novice teachers in their study were not actively seeking teacher leadership opportunities or working to increase their leadership skills. In the study, elementary and high school novice teachers were more involved in teacher leadership roles relating to curriculum and teaching than those relating to school spending and hiring. Novice teachers in this study preferred participating in teacher leadership opportunities linked to teaching and curriculum development and were interested in exploring teacher leadership ideas but viewed it as complex and potentially threatening in terms of leadership activities relating to advocacy. Additionally, the novice teachers reported that they were not offered as many leadership opportunities as they would like (Nolan & Palazzolo, 2011).

Although there were no specific suggestions for further research, Nolan and Palazzolo (2011) asserted that teacher leadership should be viewed as the responsibility of all teachers, even those just entering the classroom. Teacher preparation programs should promote the value of teacher leadership, and school administrators should provide opportunities for novice teachers to read and think about teacher leadership and how it applies to their unique skills, knowledge, and philosophy of teaching (Nolan & Palazzolo, 2011).

A second significant study that examined perceptions of teacher leadership from practicing teachers is Cosenza's (2015) qualitative research study that focused on exploring teachers' definitions of teacher leadership. Cosenza sought to determine how well teacher perceptions of teacher leadership aligned with the seven domains of the Teacher Leader Model Standards developed in 2011 by the Teacher Leadership Exploratory Consortium (n.d.). These seven domains of the teacher leader standards served as the study's conceptual framework. Cosenza's participants consisted of 22 elementary and middle school teachers in suburban southern California. The teachers were all female from diverse age groups, with various educational levels and years of experience. Only two teachers had less than 5 years of experience, and 15 teachers held a formal teacher leadership role.

There was little information on the methodology of this study. The researcher did not provide details about the interviews' frequency or duration, nor were the exact questions asked in the interviews provided in the article. However, Cosenza (2015) did discuss possible limitations and biases of the study, describing the researcher's relationship between the university and the schools involved in the study. The researcher served as a professional development school liaison with one of the schools as a university faculty member but reported extensive efforts to obtain truthful responses from the participants by assuring their anonymity (Cosenza, 2015).

Cosenza (2015) used systematic design theory to identify the emergent themes in the interview data and used open, axial, and selective coding to narrow down emergent categories. Cosenza identified five emerging themes from the participants' definitions of teacher leadership from the study results. These themes included "collaboration, sharing

best practices, taking action, role modeling, and formal leadership roles" (Cosenza, 2015, p. 86). The researcher found that practicing teachers most often defined teacher leadership as collaboration, consisting of teachers who support and work together to make decisions that will improve practice and benefit student outcomes. The participants described teacher leaders as those who influence and help other teachers by providing knowledge, teaching strategies, and guidance from their successes in the classroom (Cosenza, 2015). Cosenza found that teachers perceive teacher leaders as those who act in all processes that affect students' learning outcomes, such as curriculum choices, improving programs, instruction materials, and even student placement. Other definitions of teacher leadership included teachers who serve as role models, teachers who demonstrate professionalism and positivity towards students, and teachers who mentor students or colleagues (Cosenza, 2015).

The least common theme discovered within the teachers' definitions of teacher leadership was formal roles in which teachers have traditionally appointed leadership roles in the school or district (Cosenza, 2015). Cosenza (2015) found that practicing teachers believed that they had "very little voice in the decision-making process" without a formal role as a teacher leader (p. 92). Some teachers viewed leadership as something official that required a title, which determined an educator's level of leadership and influence. The researcher did not find a standard definition of teacher leadership among the 22 southern California elementary and middle school teachers. In fact, "the vast majority (80%) of respondents provided definitions that did not include traditional, administrative, or formally appointed roles" (Cosenza, 2015, p. 96).

Cosenza's (2015) findings were "a powerful affirmation that teachers are beginning to view themselves as professionals who have a voice in their vocation" (p. 96). The researcher asserted that teachers could be teacher leaders with or without the school administrators' support. Also, the key to school and student success is providing a collaborative environment. Interestingly, Cosenza found that "new ideas about teacher leadership are reaching all teachers regardless of their age, years of experience, educational level, and subjects taught" (p. 96). The only domain of the Teacher Leader Model Standards that was not referred to in the participants' definitions of teacher leadership was Domain V: Promoting the Use of Assessments and Data for School and District Improvement. The researcher indicated this finding might suggest that more work should be done to encourage common assessments among teachers and analyze data to inform practice (Cosenza, 2015). Cosenza concluded that there is a need for additional qualitative research on administrator perceptions of teacher leadership and the development of teacher leaders. Furthermore, the researcher expressed a need for further qualitative research from novice teachers to gain insight into their perspectives of teacher leadership definitions after they complete teacher preparation programs (Cosenza, 2015).

The third significant study chosen on teacher leadership identification is Carver's (2016) qualitative research study. Carver used a transformative learning theory lens to understand teachers' self-perceptions better as they transitioned from teachers to teacher leaders. Participants included 101 teachers who had recently graduated from a 2-year multi-district seminar series at the Great Lakes Teacher Leadership Consortium. This academy began in 1997, and with a competitive selection process, it had trained over 800 teacher leaders by the time the research study began. The participants included were all

female with at least 11 years of classroom teaching experience in suburban schools, which was also described as a study limitation. Data collection included two in-depth interviews and written reflections from the participants, and N-Vivo was used for coding during data analysis (Carver, 2016).

Carver (2016) was surprised that teachers selected for the Great Lakes Teacher Leadership Academy often came without a leadership identity. More than half of the participants began the program with leadership perceptions as a position of authority, such as administrators and district supervisors. However, participants could see their leadership capabilities as expert teachers upon completing the program. Carver described that "over time, their leadership understandings grew beyond that of traditional school administration to a formal and informal enactment of leadership by and for teachers" (p. 174). Carver's findings indicated that the formation of teacher leadership identity is an essential component of teacher leadership development and that "to overcome external and organizational obstacles to leadership, teachers may need to first perceive themselves as leaders capable of enacting change within and beyond their classroom" (p. 161). Furthermore, some teachers "may need an invitation to lead" to "flourish as leaders" (Carver, 2016, p. 161). The researcher proposed that teachers develop as teacher leaders by gaining awareness of leadership opportunities, broadening their views and definitions of teacher leadership, and embracing a teacher leadership identity (Carver, 2016).

Carver (2016) described a need for additional research on the role that gender, years of experience, and school contexts can play in developing teachers' leadership identity. The researcher questioned whether "current teacher leadership policy and practice neglects to recognize a sizable group of teachers as leaders simply because they

need to be encouraged to see themselves as leaders capable of influencing change" (Carver, 2016, p. 175). Interestingly, Carver posed whether millennial teachers would more readily identify as teacher leaders at earlier stages in their careers.

A fourth significant study of teacher leadership identification is Szeto and Cheng's (2018) case study that examined novice teachers' perceptions of themselves as developing teacher leaders and the role that principal-teacher interactions play in the development process. Szeto and Cheng explored the extent to which 20 novice teachers had developed teacher leadership within their first 2 years of teaching in Hong Kong primary and secondary schools. Using their conceptual framework of principal-teacher interactions' effects on teacher leadership development, the researchers examined teacher leadership boundaries within classrooms, subjects, teams, and organizations. They conducted semi-structured interviews lasting 90 to 120 minutes and digitally recorded them. The researchers increased the study's trustworthiness through member checking and data source triangulation, including the use of interviews, school websites, school profiles, and school development plans (Szeto & Cheng, 2018).

Data analysis in the qualitative study was conducted in three phases, beginning with identifying which novice teachers had experienced teacher leadership development (Szeto & Cheng, 2018). Next, the frequency of principal-teacher interactions and the dialogue's content within those interactions were analyzed using pre-set frequency codes and five categories of conversation, including vision sharing, instructional support, curriculum development, informal updates, and administrative matters (Szeto & Cheng, 2018, p. 368). Szeto and Cheng (2018) used thematic coding to identify emerging patterns within and across cases for cross-case comparisons. The researchers used NVivo

for independent coding and reported Cohen's Kappa coefficient of 0.79 (Szeto & Cheng, 2018).

Szeto and Cheng (2018) found that six out of the 20 novice teachers reported teacher leadership development experiences by participating in teacher leadership roles within their first 2 years of teaching. All six teachers had been involved in the subject boundary of leadership within the conceptual framework. The researchers found that the frequency of principal-teacher interactions did reflect, to an extent, the teacher leadership development in schools since most novice teacher leaders reported a high frequency of principal-teacher interaction (Szeto & Cheng, 2018). Szeto and Cheng found that supportive principals are those who provide beginning teachers with professional development opportunities and encourage them to enhance their competency. They declared that school leaders could empower beginning teachers to take on leadership roles by providing them with opportunities to lead curriculum change and innovations through school decision-making (Szeto & Cheng, 2018). Szeto and Cheng also expressed that a principal's regular and constructive communication with beginning teachers is crucial for identifying potential leaders and encouraging them to develop their leadership capacity. The researchers concluded their study by stating a need for further research on principals' and experienced teachers' perspectives concerning principal-teacher interactions and teachers' leadership aspirations (Szeto & Cheng, 2018). They also called for larger-scale quantitative studies to provide a broader picture of novice teacher leadership development (Szeto & Cheng, 2018).

The fifth and final significant study in this section on teacher leadership identification is Klein et al.'s (2018) qualitative study on how relationships and district

contexts influenced teacher leaders with access to university mentor support. Klein et al.'s instrumental case study explored how district contexts influenced teacher leadership development and how a university leadership program supported teacher leaders through interactions with stakeholders. Based on previous scholarly research that validated its value as a theoretical framework, Klein et al. chose a distributed leadership lens to guide their study.

To represent the study's findings, Klein et al. (2018) chose four teacher leaders out of the eight total participants in a grant-funded Wipro Science Education Fellowship program. The teachers were male and female from middle and high schools, aged 25 and 55, with 3 to 30 years of experience. Also included in the study were the teachers' mentors and five district coordinators who had differing characteristics and experience levels. Klein et al. used interviews and the collection of various artifacts from multiple sources to allow for data source triangulation. Six types of artifacts were collected, including action plans, reflections from the teacher leaders and mentors, evaluations, presentations, and proposals (Klein et al., 2018). The researchers used the constant comparative method to conduct coding and categorize themes.

Klein et al. (2018) found that various internal and external constraints hindered the enactment of distributed leadership. Furthermore, the alignment of teacher leadership definitions among stakeholders impacted teacher perceptions of leadership enactment (Klein et al., 2018). The researchers concluded that teacher leadership is most successful when the teacher leaders' interests align with the vision of the school/district. They found that teacher leaders gained more confidence in leadership abilities by providing mentor support. Additionally, the researchers claimed that school cultures that embrace formal

and informal teacher leadership roles are vital to promoting teacher leadership development (Klein et al., 2018).

Klein et al. (2018) found that the participants' definitions of teacher leadership proved to either help or harm their level of teacher leadership work. The researchers posited that "emerging teacher leaders need time to explore how they define teacher leadership and opportunities to unpack those definitions so that they can better understand how they might influence teacher leadership work" (Klein et al., 2018, p.110). Klein et al. described how other factors such as age or years of experience could contribute to the complexity of the relationships between teacher leaders and administrators. The researchers suggested that further analysis of teacher leadership development is needed through this lens.

Synthesis of Teacher Leadership Identification Research

The five significant research studies reviewed in this section provided several relevant conclusions on how teacher leadership identification contributes to the development of teacher leaders. To begin, many researchers found that teacher leadership identity formation is an essential component of teacher leadership development (Carver, 2016; Klein et al., 2018; Nolan & Palazzolo, 2011). Next, researchers agreed that teachers should be provided with opportunities to explore teacher leadership definitions to develop further their own teacher leadership identity (Carver, 2016; Klein et al., 2018; Nolan & Palazzolo, 2011). The literature overview showed that principals could foster teacher leadership identity development by encouraging teachers to take on leadership roles (Carver, 2016; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018). Also, providing formal and informal leadership roles provides empowering opportunities for teachers to

have a voice in the decision-making process (Cosenza, 2015; Klein et al., 2018; Szeto & Cheng, 2018). Some researchers found that relational support and administrator communication is critical to encourage teachers to develop leadership capacity (Carver, 2016; Klein et al., 2018; Szeto & Cheng, 2018). However, Cosenza (2015) found that many teachers believe there are multiple ways to participate in teacher leadership roles without a formal appointment and that teachers "can be leaders with or without" the support of their administrators (p. 96).

In terms of novice teacher leadership, Nolan and Palazzolo (2011) found that many novice teachers desired more opportunities to lead in school and classroom decision making. This finding coincides with other researchers' conclusions that all teachers can hold teacher leadership roles, regardless of their levels of teaching experience (Cosenza, 2015; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018). Additionally, novice teachers tend to better identify with teacher leadership roles relating to curriculum level decision-making instead of organizational level decision-making (Nolan & Palazzolo, 2011; Szeto & Cheng, 2018).

In this section, many researchers expressed the need for additional research on novice teachers' perspectives on teacher leadership (Carver, 2016; Cosenza, 2015; Szeto & Cheng, 2018), as well as further investigation of administrators' perceptions of teacher leadership development (Cosenza, 2015; Szeto & Cheng, 2018). Klein et al. (2018) and Carver (2016) mentioned the need for further study on how teachers' age or years of professional teaching experience affects their teacher leadership development. Furthermore, Szeto and Cheng (2018) called for future large-scale quantitative research focusing specifically on novice teacher leadership development.

The exploration of the empirical research on teacher leadership identity aligned with my study focused on novice teacher leadership development. Teacher leadership identity is one of the three essential components of teacher leadership development identified in the Teacher Leadership Development Process Model (Sinha & Hanuscin, 2017). Although only one research study included in this section identified distributed leadership as a theoretical lens, all of the studies discussed components of the distributed leadership framework regarding how formal and informal teacher leadership roles are extended between administrators, experienced teachers, and novice teachers (Spillane, 2006).

Teacher Leadership Readiness Research

The second topic in my literature review on teacher leadership development is teacher leadership readiness. This topic is relevant to my study because teachers can begin to assess their readiness for leadership by exploring their ideas and views of teacher leadership (Angelle & DeHart, 2011; Katzenmeyer & Moller, 2009; Sinha & Hanuscin, 2017). Thus, researchers have determined that teachers' views and ideas about leadership are essential for their teacher leadership development (Sinha & Hanuscin, 2017). The four significant studies in this section focus on teacher leadership readiness. Specifically, these studies examine what factors hinder or motivate teachers' leadership interests and development, what attributes and characteristics lead to effective teacher leadership, and what challenges affect teacher leadership readiness. The studies in this section include qualitative and mixed methods research designs and use teacher leadership or distributed leadership theory as a theoretical lens. Participants include novice teachers, teacher leaders, and experienced teachers throughout the four studies. The teacher participants

were from elementary, middle, and high schools in the US and Malaysia. I presented the research articles in the overview from the most significant to the least concerning teacher leadership readiness findings.

To begin, Carver and Meier's (2013) qualitative research utilized "an inclusive and flexible conceptualization of teacher leadership" as a lens to study novice teachers who had recently graduated from a teacher leadership graduate program (p. 175). The purpose of the research was to determine what factors motivated or hindered novice teachers' interests in teacher leadership and development as teacher leaders (Carver & Meier, 2013). The research questions from the study focused on whether the novice teachers had stronger tendencies towards leadership or higher leadership readiness levels after completing the program. The researchers also questioned what role peer teachers played in supporting or discouraging novice teachers' leadership development.

Carver and Meier (2013) used volunteer sampling to select the study participants, which included 26 novice teachers with an average of 3 years of professional teaching experience. All participants were part of an introductory teacher leadership course as part of a master's program at Oakland University in Michigan. The researchers disclosed their involvement in the study as course instructors and mentioned its limitations. Only 45% of the teachers taking the course agreed to participate. Data collection included 50 pages of written coursework per participant and pre-and post-surveys given 8 months apart. The surveys inquired about the participants' experience with teacher leadership in the program and at their schools (Carver & Meier, 2013). The researchers thematically coded the qualitative data to identify emerging themes and used the constant comparative method to identify cross-cutting themes.

From their analysis, Carver and Meier (2013) found that novice teachers were reluctant to take strong stances on teacher leadership due to their lack of experience, trouble with unsupportive colleagues, and feelings of fear and uncertainty. The factors that affected the novice teachers' interest in teacher leadership were identified as the need for self-confidence in teaching abilities and the need to be acknowledged by peer teachers (Carver & Meier, 2013). The novice teachers felt it necessary to first establish themselves as competent teachers to their students, parents, colleagues, and administrators before being ready for leadership roles. Additionally, the novice teachers feared that they would not be accepted as leaders (Carver & Meier, 2013).

Based on their findings, Carver and Meier (2013) declared the need to build awareness of leadership roles for novice teachers. They elaborated on the finding that half of the novice teachers included in the study reported peer teachers as obstacles in their teacher learning and leadership in schools. The novice teachers reported participation in leadership roles after graduation and said that the program provided additional support for building their teacher leadership capacity (Carver & Meier, 2013). Carver and Meier posited that novice teachers should be provided with foundational leadership skills that would enable them to develop higher classroom confidence levels. Furthermore, the researchers expressed the need for novice teachers to be offered foundational leadership training that would allow them to work more confidently with difficult colleagues (Carver & Meier, 2013).

A second significant study that examined teacher leadership readiness is Jacobs et al.'s (2016) qualitative research, which focused on practicing teacher leaders' perspectives. Jacobs et al. conducted a substantial study with a high level of organization

that used teacher leadership as the theoretical lens. Through this study, the researchers aimed to explore teacher engagement in leadership roles and activities, identify what attributes are needed for effective teacher leaders, and establish the challenges that teacher leaders face in their roles (Jacobs et al., 2016). The researchers also aimed to discover what support teacher leaders need and what rewards they were provided with as teacher leaders.

Jacobs et al.'s (2016) research study was similar to a mixed methods approach with an initial survey from a larger sample, followed by a few subsequent interviews; however, the survey responses were open-ended to collect qualitative data. The researchers used a two-phased approach to gather data from a national survey of teacher leaders from 12 states within five regions of the US. The study was limited because principals selected the teacher leaders from their schools to participate in the study. The number of teacher leader respondents totaled 177, including teachers from multiple demographics, various grade levels, and different years of professional teaching experience (Jacobs et al., 2016). After analyzing the survey data with open and axial coding for categories and themes, the researchers used volunteer sampling for the second phase of data collection, with 20 teachers participating in Skype or telephone interviews.

From their research, Jacobs et al. (2016) found that teacher leaders were most commonly engaged in teacher leadership by leading meetings, conferencing with peer teachers, developing curriculum, conducting observations, doing administrative paperwork, demonstrating teaching, and sharing instructional materials and curriculum. They discovered that teacher leaders were engaging in multiple activities at multiple levels in their schools and that their roles as leaders evolved. The essential attributes for

effective teacher leadership were teaching experience, classroom experience, experience teaching adults, and experience related to content knowledge (Jacobs et al., 2016). The participants described the most important personal characteristics for teacher leadership as flexibility, collaboration, support, and being a good communicator. Additionally, Jacobs et al. found that teacher leaders believed that effective leaders should be committed lifelong learners who are well organized and have ethical behavior.

Some of the challenges to teacher leadership described by the participants included heavy workloads with a lack of time to complete responsibilities, teachers' resistance to change, and a fear of new technology (Jacobs et al., 2016). Jacobs et al. (2016) found that teacher leaders needed support and collaboration from peer teachers to be successful, but the most critical support needed was from administrators. The teacher leaders also reported a need for professional development that contributed to their leadership skills, "such as communication, problem-solving, and conflict resolution skills, as well as skills for dealing with the resistant teacher" (Jacobs et al., 2016, p. 393). They described the rewards for serving in leadership roles as benefits to themselves in the form of being personally fulfilled for making a difference, being appreciated and respected by others, and growing through professional learning. The participants felt that the greatest reward for serving as a teacher leader was benefiting others by supporting students' and teachers' growth and learning. None of the study's teacher leaders were engaging in teacher leadership activities related to collaborating with families and communities. Also, only a few were engaging in coordinating professional learning communities or action research (Jacobs et al., 2016).

From their findings, Jacobs et al. (2016) concluded that school leader programs should teach future principals to be “leaders of leaders” instead of “the instructional leader” (p. 401). The researchers also claimed that districts should be providing extrinsic incentives and rewards for their teacher leaders to “send the message that teacher leadership is a valuable district asset and that central-office administrators appreciate the time and effort expended by teacher leaders” (Jacobs et al., 2016, p. 402). Jacobs et al. posited that districts could provide incentives and rewards to teacher leaders with increased salaries, paid tuition for college courses, paid conference registrations, and travel expenses. They could also give celebratory meals, paid educational association memberships, or present them with certificates or plaques to honor their service. In terms of future studies, Jacobs et al. suggested investigating who practicing teachers identify as teacher leaders in their schools and why they perceive them as leaders.

The third significant study chosen within teacher leadership readiness is Tahir et al. ‘s (2020) mixed methods research study that utilized distributed leadership as a theoretical lens. Unlike the previous research discussed in this section, Tahir et al.’s study took place in Malaysia and excluded novice and senior teachers from the participant sample. The researchers claimed that “novice teachers were unsuitable respondents due to lack of experience, knowledge, and skills,” and senior teachers likely already held a formal teacher leader position (Tahir et al., 2020, p. 290). The goal of this research study was to investigate teachers’ perspectives and understanding of teacher leadership, identify teachers’ readiness for teacher leadership, and explore the challenges that in-service teachers face when engaging in teacher leadership roles (Tahir et al., 2020).

The participants included in Tahir et al.'s (2020) study were 780 teachers with more than 5 years of teaching experience. The teachers were from 40 primary and secondary schools. The researchers mentioned getting assistance from the state department of education to receive a high survey response rate of 95% (Tahir et al., 2020). Ten teachers were chosen for interviews from the survey sample, but no information was provided in the article regarding how those participants were selected. The researchers provided that the teachers were chosen based on their years of experience and their likelihood of being teacher leaders (Tahir et al., 2020). The survey for the quantitative phase of the mixed methods study consisted of only four demographic questions, including gender, years of teaching experience, school type, and knowledge of teacher leadership. The researchers measured the participants' teacher leadership readiness with 12 items adapted from Katzenmeyer and Moller's (2009) Teacher Leadership Readiness Instrument. The interview protocol was mentioned, and information on the pilot test run to test the validity and reliability of the instrument. Tahir et al. reported a coefficient of internal consistency at 0.929 and provided a factor analysis table in the study. Qualitative pilot data collection on two teachers led to deleting some of the survey items (Tahir et al., 2020).

From their results, Tahir et al. (2020) found that more than 90% of their respondents were familiar with the concept of teacher leadership, and most were at a stage of developing their knowledge on teacher leadership. Teachers from the study perceived teacher leadership as a positive school culture component. The teachers promoted teamwork and collaboration as necessary components of teacher leadership and building relationships with peer teachers (Tahir et al., 2020). Tahir et al. also found that

teachers believed teacher leadership improved school improvement processes. The researchers claimed that most experienced teachers who engaged in informal leadership by assisting novice teachers were reluctant to be labeled as teacher leaders. Interestingly, the female primary teachers were shown to have higher readiness levels for teacher leadership than male primary teachers (Tahir et al., 2020).

Overall, Tahir et al. (2020) determined that teacher leadership readiness can be a determining factor in teacher leadership effectiveness. The researchers suggested a need for additional studies on teacher leadership from more experienced teachers' perspectives on whether novice teachers are ready to take on roles as teacher leaders. Tahir et al. also expressed a need for future research "through the perceptions of novice teachers in order to provide a more comprehensive viewpoint on leadership qualities of their teacher leaders" (p. 306).

The final significant study included in this overview of empirical teacher leadership readiness studies is Scales and Rogers' (2017) mixed methods research article. Scales and Rogers' study served as a follow-up investigation of novice teachers who had completed a teacher leadership licensure requirement. The study focused on how the licensure requirement inspired novice teachers to serve in teacher leadership roles during their first year after graduating from a public university in the southeastern US (Scales & Rogers, 2017). Although a clear theoretical framework was not provided, the researchers mentioned teacher leadership developmental theories in the literature review. The study's other weaknesses included low validity due to homogenous sampling and small sample size. Only 15 survey respondents and three semi-structured interview participants were

included. However, the researchers did provide the online survey and interview questions in the research article.

Scales and Rogers (2017) found that novice teachers perceived themselves as teacher leaders because of their work in the classroom. The results also showed that some novice teachers had positive experiences with peer teachers, as the participants described them as eager to hear about what they learned in college (Scales & Rogers, 2017). These beginning teachers perceived their engagement in leadership activities as sharing ideas with colleagues. Some novice teachers in the study described that teacher leadership was about taking on extra roles and responsibilities. They also elaborated on the need to make themselves known at school to allow for leadership opportunities and gain respect from fellow teachers (Scales & Rogers, 2017).

Interestingly, Scales and Rogers (2017) found that the novice teachers' perspectives of teacher leadership changed significantly during their first year of teaching. The researchers concluded that novice teachers' ability to demonstrate teacher leadership was impacted by school context and perceptions of others (Scales & Rogers, 2017). As a result, Scales and Rogers suggested further research on what school contexts foster novice teacher leadership development.

Synthesis of Teacher Leadership Readiness Research

The four significant research studies reviewed in this section provided several relevant conclusions on how teacher leadership readiness contributes to the development of teacher leaders. To begin, many researchers found that teacher leadership readiness can be a determining factor in teacher leadership effectiveness (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020). Also, teachers' self-confidence in their teaching

abilities and content knowledge increases their teacher leadership readiness (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020). Teachers perceived the ability and willingness to collaborate with peer teachers as necessary for effective teacher leadership (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020). Additionally, researchers agree that equipping teachers with foundational leadership skills can increase their confidence in their leadership capabilities (Carver & Meier, 2013; Jacobs et al., 2016; Scales & Rogers, 2017).

Within the overview, there were some inconsistencies in the findings of the research studies. For instance, although some researchers found that many teachers perceived peer teachers as obstacles in developing and practicing teacher leadership (Carver & Meier, 2013; Tahir et al., 2020), others found that peer teachers demonstrated interest in the new strategies and ideas that novice teacher leaders had to offer (Scales & Rogers, 2017). In Scales and Rogers' (2017) study, the novice teachers described more significant effects from school contexts on their teacher leadership development than peer teachers. Nonetheless, many researchers agreed that support from peer teachers is a necessary component of practicing effective teacher leadership (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020). The researchers also established that teachers ready to take on teacher leadership roles must be prepared to take on extra responsibilities as educators (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020).

In terms of novice teacher leadership, researchers found that many early career teachers perceived their lack of experience as a source of their unpreparedness for teacher leadership (Carver & Meier, 2013; Tahir et al., 2020). Novice teachers admitted that their perceptions and definitions of teacher leadership changed once they began their

professional teaching careers (Carver & Meier, 2013; Scales & Rogers, 2017). Scales and Rogers (2017) found that novice teacher leaders described the importance of making themselves known within their schools to gain respect as leaders, while Carver and Meier (2013) found novice teachers had trouble being accepted as leaders by their more experienced peers.

There were differing perspectives on the areas needing additional research in this section. Some researchers asserted the need for further exploration of who practicing teachers perceive as teacher leaders and why (Jacobs et al., 2016; Tahir et al., 2020), while others agreed there is a need for more research on teacher leadership from novice teachers' perspectives (Scales & Rogers, 2017; Tahir et al., 2020). Tahir et al. (2020) proposed a need to examine further whether experienced teachers feel that novice teachers are ready for leadership roles. Finally, Scales and Rogers (2017) declared further research should be done on what school contexts foster novice teacher leaders' development.

Exploring the empirical research on teacher leadership readiness provided necessary insight for my study because it is an essential part of the Teacher Leadership Development Process Model (Sinha & Hanuscin, 2017). The studies reviewed in this section embraced theoretical lenses of either teacher leadership or distributive leadership. However, all research contained elements associated with Spillane's (2006) distributed leadership framework, such as the importance of context, relationships, and interactions within leadership practice.

Teacher Leadership Engagement Research

This final section of the literature review examined teacher leadership engagement through five significant research studies. Teacher leadership engagement aligns with the teacher leadership practices component of the conceptual framework of this research study. Sinha and Hanuscin (2017) describe this aspect of teacher leadership development as the "various activities teachers do as they develop as leaders" (p. 368). The empirical research articles included in this section focus on teacher leadership engagement concerning novice teachers' perspectives on their teacher leadership development and engagement. Also, the articles discuss novice teachers' opportunities for enacting leadership, their impact when in leadership roles, and their understanding of those roles. Most of the research in this category consists of qualitative case studies, with only one mixed methods research study. Participants include novice teachers, experienced teachers, informal and formal teacher leaders, alternative certification teachers, and school administrators throughout the five studies. The participants in these studies were from elementary, middle, and high schools in the US, the Netherlands, England, and Hong Kong, with varying levels of experience and leadership roles. Again, I presented my review of these research articles from the most significant to the least concerning teacher leadership engagement findings.

The first significant study relevant to teacher leadership engagement is Cheng and Szeto's (2016) solid qualitative case study. Cheng and Szeto utilized a distributed leadership lens to study novice teachers' perspectives on their teacher leadership development. Their research focused on how novice teachers perceived their roles as teacher leaders and school principals' roles in teacher leadership development. The

researchers also explored how novice teachers perceived the influence of principal facilitation on their teacher leadership development (Cheng & Szeto, 2016).

Cheng and Szeto (2016) drew from a sample population of novice teachers in Hong Kong with 2 years of professional teaching experience. The 20 novice teacher participants were all from the same undergraduate cohort and were involved in a more extensive longitudinal study conducted by the researchers. The participants were chosen from various schools to add to the study's validity. The researchers conducted two rounds of semi-structured interviews to collect case study data and included several tables in the article to provide detailed summaries and illustrations of the results. Data source triangulation was used by collecting artifacts, examining school websites, and reviewing annual school reports for each case (Cheng & Szeto, 2016). Cheng and Szeto conducted a thematic analysis of the qualitative data using Katzenmeyer and Moller's (2009) conceptual dimensions of teacher leadership functions. Cross-case comparisons were made to examine patterns and themes using NVivo 10. The researchers reported Cohen's Kappa coefficient of 0.81, indicating a substantial agreement had been reached (Cheng & Szeto, 2016).

From their results, Cheng and Szeto (2016) found that 14 of the 20 novice teachers were not participating in teacher leadership roles within their schools. However, six novice teachers were active in principal-delegated and teacher-initiated leadership roles (Cheng & Szeto, 2016). The researchers found that clear principal communication, acknowledgment of teachers' ideas, and allowing for individual innovation proved to be essential factors in the facilitation of teacher leadership roles for novice teachers (Cheng & Szeto, 2016). Teacher perceptions from the study reflected the importance for

principals to delegate and facilitate teacher leadership roles. The researchers found it necessary for novice teachers to be aware of teacher leadership opportunities and be willing to participate in those opportunities when they occur. Cheng and Szeto also found that teacher leadership development can progress by combining teachers ready to lead with principals who effectively facilitate teacher leadership development.

The researchers deduced that perhaps one reason why so few novice teachers were engaged in leadership roles was that school documents indicated the schools' organizational visions focused on school-based curriculum development (Cheng & Szeto, 2016). This type of school development did not align with many novice teacher participants' concerns, which focused more on classroom management, pedagogical development, and exploring school culture. However, novice teachers were excited about opportunities to contribute to their school's success, both inside and outside the classroom (Cheng & Szeto, 2016). Cheng and Szeto (2016) found that novice teacher leaders initiated formal and informal leadership opportunities by expressing their willingness to lead their principals or striving for enhanced student learning. The researchers also posited that perhaps some of the other novice teachers' resistance to participating in leadership roles was due to a lack of collaborative culture in the schools (Cheng & Szeto, 2016).

Overall, Cheng and Szeto (2016) declared that teacher leadership roles should be introduced to pre-service teachers to facilitate better teacher leadership development and engagement at the novice teaching level. The researchers further stated that "the development of teacher leadership is indeed contextual and depends on teachers' willingness and the specific school culture in which individual teachers are situated"

(Cheng & Szeto, 2016, p. 147). Finally, they suggested a need for further research from teachers' and principals' perspectives to better understand novice teacher leadership development.

A second significant study that examined teacher leadership engagement is Meirink et al.'s (2020) qualitative research, described as descriptive and exploratory. Meirink et al.'s study focused on exploring novice teachers' opportunities for enacting leadership. The article contained a strong literature review on novice teacher leadership. Informal teacher leadership based on the work of York-Barr and Duke (2004) was cited as the theoretical framework. Meirink et al. aimed to explore the teacher leadership opportunities available to beginning teachers on a team and school organizational level.

The participants in Meirink et al.'s (2020) study consisted of 12 novice teachers from 11 different urban and rural secondary schools in the Netherlands. All participants were in their late twenties, with eight female participants and four males. The novice teachers were from an alternative certification program and only taught 3 to 4 days a week, taking university classes on the remaining days. Additional participants were 11 school management staff members, including principals, other administrators, and department heads.

Meirink et al. (2020) conducted two rounds of 45 to 60-minute semi-structured interviews after the participants' first and second years of teaching. The researchers used the data collected from the participants' second interviews as the study's focus. In these interviews, the researchers had the participants reflect on their answers from the interview the year prior, then provide information on how their experiences with teacher leadership had changed since then. School administrators and other management staff

members were selected based on suggestions from the participants. These participants were contacted for 20 to 30-minute phone interviews, where they were asked about teacher leadership at their schools and how they perceived opportunities for beginning teachers to engage in leadership (Meirink et al., 2020). The researchers transcribed the qualitative audio data and used ATLAS-ti for coding. The data was then coded by the main themes of teacher leadership enactment as either subject matter or school. Then, the first and second authors worked closely to code the data by the teacher leadership enactment level, using the categories of witness, participation, or ownership (Meirink et al., 2020). These categories were based on the preservice teacher leadership research of Rogers and Scales (2013).

From their results, Meirink et al. (2020) found that most novice teachers perceived opportunities to engage in leadership activities on a subject matter department level. These leadership activities included regular workday opportunities, such as developing lessons or tests, creating projects, such as field trips, or opportunities for innovation, such as a new teaching method. The novice teachers expressed difficulty engaging in ownership of leadership activities within their subject domain due to resistance from more experienced colleagues. Some participants described a more significant initiative to redesign projects that more experienced colleagues perceived as too much work. Meirink et al. also found that novice teachers' opportunities to engage in school-level leadership activities were limited in their first year of teaching but increased in their second year. These leadership activities included organizing school-wide excursions, cross-curricular activities, conducting research on school issues, and participating in formal meetings (Meirink et al., 2020).

Regarding alignment of perceptions of school-level leadership opportunities between novice teachers and school administrators, half of the participants were found with similar perceptions of witnessing, participating in, or owning leadership activities (Meirink et al., 2020). However, there were cases of misalignment in that some administrators perceived no opportunities for their novice teachers to engage in leadership. In contrast, the novice teachers perceived themselves as participating in and owning leadership activities on a school level (Meirink et al., 2020).

From their research, Meirink et al. (2020) concluded that it is essential for novice teachers to develop their instructional and content knowledge early in their teaching careers. The researchers described that novice teachers' efforts to engage in leadership activities could deter them from increasing their teaching knowledge and skills. Meirink et al. also advised that novice teachers' efforts to innovate existing teaching procedures, lessons, and projects can be difficult due to resistant, more experienced colleagues. The researchers suggested that relationship building and higher levels of interaction between novice teachers, experienced colleagues, and school administrators could lead to greater alignment in perceptions of teacher leadership engagement (Meirink et al., 2020).

Meirink et al. (2020) explained the study's limitation that school administrators might have been unaware of the ideas and actions of leadership engagement from their novice teachers. This could have added to the misalignment of their perceptions. Meirink et al. expressed a need for further research on this topic that includes collecting observational data. The researchers also suggested that further research be conducted to examine how novice teachers' leadership is linked to their well-being, levels of innovation, and school cultures (Meirink et al., 2020).

The third significant study chosen on teacher leadership engagement is Muijs et al.'s (2013) mixed methods research study utilizing teacher leadership as a theoretical lens. This empirical research study in England explored how teacher education programs prepare new teachers for teacher leadership roles (Muijs et al., 2013). Muijs et al. examined if new teachers were ready for leadership roles and their impact on those leadership roles.

Participants in Muijs et al.'s (2013) study were second-year teachers from an alternative certification program in London known as Teach First (TF) and their head teachers. The researchers associated the TF teachers with newly qualified or novice teachers; however, they were cautious not to overly generalize from TF teachers to novice teachers because of the program's highly selective process that recruits university graduates with a history of academic success (Muijs et al., 2013). Muijs et al. issued two surveys to participants for the study, the first with responses from 123 teachers and 36 head teachers and the second with responses from 280 teachers and 45 head teachers. Tables illustrating the information on the surveys were provided, but there was no information on the instrument's validity and reliability. In the qualitative phase, the researchers conducted case studies at 16 schools. These were chosen from purposive sampling based on location, student diversity, and school type (Muijs et al., 2013). The researchers used semi-structured interview protocols for 20 to 40-minute interviews with 47 teachers. Additionally, Muijs et al. conducted teachers' observations and then interviewed 16 head teachers, 31 line managers, and 28 other teachers. Data analysis included content analytic methods and a coding scheme to quantify the results.

From the results, Muijs et al. (2013) found that the beginning teachers were engaging in many informal teacher leadership roles and were described as “committed, enthusiastic and intelligent” (p. 774). Peer teachers reported novice teachers as ambitious and hard-working; however, some viewed the beginning teachers seeking leadership positions as pushy (Muijs et al., 2013). Muijs et al. noted that most experienced teachers felt that novice teachers lacked the experience necessary to engage in school improvement initiatives. The novice teachers viewed teacher leadership engagement through collaboration with peer teachers. However, they reported a lack of engagement in higher levels of decision-making. Overall, the novice teachers were perceived as making strong contributions through informal leadership (Muijs et al., 2013).

From their research, Muijs et al. (2013) concluded that newly qualified teachers or novice teachers could be teacher leaders. The researchers asserted that “leadership ability depends on support from the school as well as the individual’s organizational skills and their willingness to attend to detail when leading an initiative” (Muijs et al., 2013, p. 774). Most schools encouraged the participants to take on leadership roles for events and initiatives that appealed to their interests. The novice teachers were engaged in leadership roles and worked well with teachers’ assistants. Muijs et al. found that school administrators were hesitant to place novice teachers from an alternative certification program in formal leadership positions because of their lack of experience. However, the researchers suggest that novice teachers must be involved in leadership positions in schools where less experienced teachers make up most of the staff (Muijs et al., 2013).

Muijs et al. (2013) agree that school context is essential in novice teacher leadership engagement. The researchers also deduced that school leaders committed to

distributed leadership and consistent school policies make it easier for novice teachers to effectively engage in teacher leadership roles (Muijs et al., 2013). Schools can better facilitate teacher leadership development and engagement by embracing a "highly collegial culture, modeling leadership, and providing opportunities for teacher leadership" (Muijs et al., 2013, p. 777). Although Muijs et al. did not make suggestions for further research, they concluded their study by declaring a strong belief that alliances between schools and universities should be created to provide practical leadership development opportunities for novice teachers.

A fourth significant study of teacher leadership engagement is Lai and Cheung's (2015) qualitative research that was part of a more extensive study investigating the implementation of a secondary curriculum in Hong Kong schools. This article focused on the data collected from nine focus groups with teachers from nine secondary schools. Through a teacher leadership lens, Lai and Cheung explored how teacher leaders interacted with teachers when faced with curriculum changes and how levels of teacher leader engagement led to changes in schools.

Lai and Cheung (2015) failed to give adequate information on the participants' demographics in the focus groups. There was also no mention of the exact number of participants included in each of the nine groups. However, the researchers described that the teachers held informal teacher leadership roles and were selected because they had high levels of participation in implementing the new curriculum (Lai & Cheung, 2015). Before the interviews began, the researchers explained that their goal was to find out what the teacher leaders did to help other teachers improve teaching and learning to bring about change in schools. The interviews were conducted in the second half of the school

year during the first year of new curriculum implementation. During the interviews, the topics covered included curriculum planning, teaching and learning strategies, learner diversity, assessment strategies, change management, student learning and critical issues, and school needs and concerns (Lai & Cheung, 2015). Each interview lasted over 1 hour, and the researchers recorded and transcribed the qualitative data from each session. There was limited information provided regarding the data analysis process. The researchers did mention several definitions of teacher leadership that were used as "sensitizers to inform the data analysis" (Lai & Cheung, 2015, p. 678).

From their study results, Lai and Cheung (2015) found that informal teacher leaders, when faced with a new curriculum, strived to follow that curriculum's unique requirements and procedures closely. The informal teacher leaders also emphasized to their colleagues how important it was to follow the new curriculum framework. The interview participants chose to "adhere to curriculum options found to be suitable or feasible and chose to drop those found to be opposing this" (Lai & Cheung, 2015, p. 680). Lai and Cheung found that teachers engage in informal leadership associated with curriculum reform by understanding it and training on how it should be done. Additionally, the informal teacher leaders extended their influence as leaders beyond their classroom walls by collaborating with peer teachers at their schools (Lai & Cheung, 2015).

Lai and Cheung (2015) found that informal teacher leadership is engaged in school-based new curriculum planning when teachers decide to change the organization of subject matter, time, or people to impact teaching and learning positively. Also, informal teacher leaders extend their influence beyond their schools when they use

professional networks to collaborate with teachers from other schools to solve curricular and pedagogical problems (Lai & Cheung, 2015). The researchers declared:

> To develop teachers as decision makers and promote teachers' participation in decision-making, principals need to share decision-making authority with teachers, encourage and support the development of a collaborative culture in schools, reshape organizational structures supporting the practice of teachers as decision-makers, and provide resources (including time and funds) for teachers to carry out their decision-making responsibilities. (Lai & Cheung, 2015, p. 689)

Lai and Cheung concluded that a school's capacity to innovate increases when teachers are provided with opportunities to display their talents and capacity to lead.

In further research, Lai and Cheung (2015) described the need to investigate how teachers find their preparedness to take on teacher leadership roles. They also questioned what contextual conditions support teacher leadership development and what factors affect teacher leadership engagement.

The fifth and final significant study included in this overview of teacher leadership engagement is Fairman and Mackenzie's (2015) study on the influence of teacher leaders and their understanding of their leadership roles. Fairman and Mackenzie situated their research as an in-depth look at the impacts of teacher leaders on the improvement of student learning. There was a detailed account of the history of the development of teacher leaders that provided sufficient background for the study, including the shift that has taken place in the views of what a teacher leader is, what the roles of a teacher leader are, and why their actions and influences are so significant today (Fairman & Mackenzie, 2015).

Based on work from previous studies, the researchers developed a descriptive model of teacher leadership that provided spheres to illustrate the multitude of activities held by teacher leaders (Fairman & Mackenzie, 2015). Fairman and Mackenzie's (2012) Spheres of Teacher Leadership Action for Learning framework was used in answering two easily identifiable research questions in the study, which included how teacher leaders influence peers to improve teaching and student learning and how well they understand their role and development as teacher leaders. The interview data used for this research was from two separate teacher leadership studies conducted in seven schools in Maine across all grade levels.

Fairman and Mackenzie's (2015) research sites were described in detail: two elementary and three high schools with formal and informal leadership teams. Two middle schools were chosen based on their multi-grade class groupings and innovative instructional practices. The researchers used convenience and purposive sampling to obtain 40 teacher participants. The teachers were interviewed, focusing on their teaching experiences and perceptions of teachers when performing the leadership activities provided in the framework (Fairman & Mackenzie, 2015). The researchers detailed how the data were analyzed when coding the interviews by hand and with software to find similar patterns when creating case studies for each school.

Fairman and Mackenzie (2015) mentioned the study's limitations but did not describe the iterative process. The researchers gave a detailed account of the differences in school contexts in the development of teacher leadership, which was mentioned to further understand the leadership activity findings from the study. The differences in the origination of leadership roles ranged from being created by teachers who saw a need for

peer support to principals who developed leadership teams among grade levels to improve student learning (Fairman & Mackenzie, 2015). There was also a stark contrast in the two middle schools involved in the study regarding school climate and principal leadership styles that may have directly impacted the findings (Fairman & Mackenzie, 2015).

Fairman and Mackenzie (2015) found that teacher leaders can influence other teachers towards improved teaching and learning by modeling positive professional attitudes. Specifically, teacher leaders engage in leadership by demonstrating a commitment to professional learning, sharing ideas with peer teachers, and taking pedagogical risks in the classroom (Fairman & Mackenzie, 2015). The researchers found that teacher leadership work improves schools' professional climate through interactions with colleagues. Teacher leaders' interactions with peer teachers included sharing, coaching, collaborating, and advocating together (Fairman & Mackenzie, 2015). The researchers posited that these interactions improved the teacher leaders' professional relationships.

Overall, Fairman and Mackenzie (2015) claimed that the school's collegial climate could support teacher leadership roles, but teacher leadership enactment can also improve a school's collegial environment. In the study, the teachers felt that informal teacher leaders had a more significant influence on improved teaching and learning than formal leadership roles. Additionally, many teachers engaging in informal leadership activities considered it as 'teamwork' to work towards a common school goal, rather than leadership (Fairman & Mackenzie, 2015). Interestingly, Fairman and Mackenzie stated

that teachers' ability to see what they were doing as leadership tasks depended on their level of teaching experience.

There were no recommendations for further study in the article; however, Fairman and Mackenzie (2015) discussed the importance of relationships associated with the success of teacher leaders and how the formalities of leadership titles can sometimes harm those crucial relationships. The researchers also declared that seeing teacher collaboration as a leadership role was of great importance in the future understanding and success of teacher leaders (Fairman & Mackenzie, 2015).

Synthesis of Teacher Leadership Engagement Research

The five significant research studies reviewed in this section provided several relevant conclusions on how teacher leadership engagement contributes to the development of teacher leaders. To begin, many researchers agree that school context is an essential factor in novice teacher leadership engagement (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). Researchers also found principal facilitation as a critical factor in teacher leadership engagement (Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013). Combining principals who effectively facilitate leadership development with teachers willing to lead can increase teacher leadership development and engagement (Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013). Another way school principals can positively affect teacher leadership development is by supporting a collaborative school culture (Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013). Muijs et al. (2013) found that school leaders committed to distributed leadership practices could more effectively facilitate novice teacher leadership engagement in their schools.

Other interesting findings on teacher leadership engagement were associated with the importance of collaboration. Researchers have found that teacher leaders' collaboration with peer teachers increases school climate and culture (Fairman & Mackenzie, 2015; Lai & Cheung, 2015). Correspondingly, frequent interactions and relationship building through teacher collaboration can increase teacher leadership development and engagement (Fairman & Mackenzie, 2015; Meirink et al., 2020; Muijs et al., 2013). Muijs et al. (2013) found that schools with high collegial cultures can better support teacher leadership development. Moreover, Fairman and Mackenzie (2015) stressed the importance of teacher collaboration being seen by stakeholders as leadership engagement to successfully understand the extent of teacher leadership.

Since several of the studies in this section contained novice teacher participants, many conclusions were made specifically focusing on beginning teachers' leadership engagement. The literature review revealed that novice teachers could be teacher leaders (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). In fact, researchers agreed that many novice teachers are engaging in informal leadership roles (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). Novice teachers working in informal leadership roles are significant because some teachers perceive informal teacher leadership as more impactful on teaching and learning than formal teacher leadership roles (Fairman & Mackenzie, 2015). Muijs et al. (2013) found that novice teachers could make substantial contributions to their schools through informal teacher leadership engagement. However, administrators must make novice teachers more aware of leadership opportunities to increase their engagement in teacher leadership roles (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). Although novice teachers have to

gradually develop as teacher leaders (Cheng & Szeto, 2016; Meirink et al., 2020), many researchers have found that they are ambitious and excited about opportunities to exercise leadership (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013).

Not all of the findings associated with novice teacher leadership engagement were positive. Meirink et al. (2020) expressed concern that novice teachers' focus on teacher leadership engagement could take away from their development of content knowledge and instructional skills, which they should be developing early in their practice. Also, novice teacher leadership engagement was sometimes hindered by more experienced peer teachers and their perceptions of novice teachers' lack of experience (Meirink et al., 2020; Muijs et al., 2013). In some instances, principals hindered novice teacher leadership engagement by limiting their involvement in formal leadership roles because of their lack of experience (Muijs et al., 2013). Cheng and Szeto (2016) found that novice teacher leadership engagement can decrease when there is a misalignment between the goals of the school and the goals of the beginning teacher. Nonetheless, many schools involve beginning teachers in leadership activities that appeal to their interests (Muijs et al., 2013).

Overall, the review of current teacher leadership scholarly research focused on teacher leadership engagement revealed a need for further research on novice teacher leadership development from teachers' and administrators' perspectives (Cheng & Szeto, 2016). Meirink et al. (2020) described the need for additional study of novice teacher leadership development from perspectives of peer teachers within the same department or grade level. Finally, Lai and Cheung (2015) posited that additional research should focus

on how teachers prepare for teacher leadership roles and what school contexts and other factors affect teacher leadership engagement.

Exploring the empirical research on teacher leadership engagement provided necessary insight for my study because it is an essential component of the Teacher Leadership Development Process Model (Sinha & Hanuscin, 2017). The studies reviewed in this section contained theoretical lenses based on various forms of teacher leadership and distributive leadership. The empirical research articles had elements associated with Spillane's (2006) distributed leadership framework by examining how teachers work with others to perform formal and informal leadership tasks, which is the social distribution of leadership practice (Spillane et al., 2004).

Conclusions from Literature Review

My examination of the overall state of the research field verified that there have been numerous significant studies conducted on the topic of teacher leadership development (Wenner & Campbell, 2017; York-Barr & Duke, 2004). Since the research topics included in my literature review are all components identified as factors of teacher leadership development (Sinha & Hanuscin, 2017), there was a substantial amount of overlap in the reported findings in each topic. This discovery was not surprising since teacher leadership occurs when all three components are aligned (Sinha & Hanuscin, 2017). As suggested in previous reviews of the literature by teacher leadership scholars, the research field was lacking overall in using strong theoretical frameworks (Wenner & Campbell, 2017; York-Barr & Duke, 2004). Distributed leadership was used as a theoretical lens in three of the studies included in the current literature review, while broad conceptualizations of teacher leadership were utilized in nine studies. This finding

supports previous authors who suggested a need for additional teacher leadership development research through a distributed leadership theoretical lens, focusing on specific features of the theory during the study (Fitzsimons et al., 2011; Göksoy, 2015; Harris et al., 2007; Spillane et al., 2004; Wenner & Campbell, 2017).

The current review of the literature also revealed a significant need for additional research on the topic of novice teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020). Scholars who conducted recent empirical teacher leadership research agree that further studies are needed to investigate what school contexts foster novice teacher leadership development (Lai & Cheung, 2015; Scales & Rogers, 2017). Future research is also necessary to examine how experienced peer teachers and administrators perceive novice teacher leadership in schools and districts (Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Szeto & Cheng, 2018). Other researchers called for additional studies to explore how teachers' age or years of professional teaching experience affects teacher leadership development (Carver, 2016; Klein et al., 2018). Finally, the research field would benefit from studies to examine who practicing teachers perceive as teacher leaders and why (Jacobs et al., 2016; Tahir et al., 2020).

The findings unveiled in my literature review have practical significance to my research problem of addressing the gap in the literature on how novice teachers are developing and engaging in teacher leadership roles. For example, all three constructs explored in my research have been established in the literature as critical factors in determining teacher leadership development. These factors include teacher leadership

identity (Carver, 2016; Klein et al., 2018; Nolan & Palazzolo, 2011), teacher leadership readiness (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020), and teacher leadership engagement (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). Also, the findings and generalizations across the research topics revealed that teachers of all experience levels can hold teacher leadership roles, including novice teachers (Carver & Meier, 2013; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Muijs et al., 2013; Nolan & Palazzolo, 2011; Scales & Rogers, 2017; Szeto & Cheng, 2018). Lastly, many researchers found that novice teachers' lack of experience is seen by many teachers, administrators, and novice teachers themselves as a hindrance to their leadership involvement (Carver & Meier, 2013; Meirink et al., 2020; Muijs et al., 2013; Tahir et al., 2020).

I identified several common beliefs in the current literature regarding teacher leadership development by making cross comparisons between my research topics. First, cross comparisons between the research topics revealed a common belief that teacher leadership development can increase significantly with support from school administrators (Carver, 2016; Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018). Second, teacher leadership development increases with support from peer teachers (Carver & Meier, 2013; Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020). A third common finding was that schools with high collegial cultures and increased communication between teachers and administrators could better foster teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Fairman & Mackenzie, 2015; Klein et al., 2018; Lai & Cheung, 2015; Meirink et al., 2020; Muijs et al., 2013; Szeto & Cheng, 2018). Fourth, researchers

agreed that novice teacher leaders are engaging in many informal leadership opportunities (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013; Scales & Rogers, 2017), as well as leadership activities associated with curriculum, grade level, or department level decision-making (Nolan & Palazzolo, 2011; Szeto & Cheng, 2018). Finally, many researchers found that novice teachers must be made aware of leadership opportunities by administrators to better increase their levels of teacher leadership development and engagement (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018).

Regarding methodology, my review of the literature revealed a limited number of quantitative research available on teacher leadership development. I found that nearly all researchers employed a qualitative method, with only one quantitative research study throughout my literature review. Experts on novice teacher leadership research asserted that further studies are needed that examine teacher leadership through more extensive quantitative methods (Szeto & Cheng, 2018). However, several other scholars insist additional research should explore multiple stakeholders' perspectives on novice teacher leadership, including experienced peer teachers and school administrators (Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Szeto & Cheng, 2018). Thus, qualitative teacher leadership research examining these multiple perspectives would be well-suited for a study situated within a distributed leadership theoretical framework because it allows for investigating teacher leadership practice within its context (Spillane, 2006; Spillane et al., 2004).

After examining previous teacher leadership research methodologies, it was logical for me to choose a research design that utilizes quantitative and qualitative

methods to explore novice teacher leadership development further. After all, many distinguished teacher leadership authors with research goals similar to mine had recently benefited from the use of a mixed methods research design. Similar recent research goals included studying novice teachers' teacher leadership readiness levels from alternative certification programs (Muijs et al., 2013), the impact of teacher leadership certification on novice teachers' leadership development (Scales & Rogers, 2017), and non-novice teachers' readiness levels for teacher leadership (Tahir et al., 2020).

In conclusion, my review of the literature provided a thorough account of the recent studies pertinent to understanding the state of the field on novice teacher leadership development research. The analysis of the relevant empirical literature supports the purpose of my research study by verifying a significant need for additional research on the topic of novice teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020). My research study is also supported by the need for additional research that examines how experienced peer teachers and administrators perceive novice teacher leadership in schools (Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Szeto & Cheng, 2018). Finally, and perhaps most significant, is the recommendation for additional research that examines how teachers' years of professional teaching experience affect teacher leadership development (Carver, 2016; Klein et al., 2018). These suggestions for future research by teacher leadership experts indicate the importance of conducting an extensive investigation of how novice teachers' years of professional teaching experience affect their teacher leadership identification, readiness, and engagement.

CHAPTER 3

METHODS

After decades of empirical research on the teacher leadership phenomenon, there is a need for more literature on leadership opportunities provided to novice teachers and research that examines novice teacher leadership development from novice teachers' perspectives (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017). There is also a lack of quantitative research on novice teacher leadership to explain how beginning teachers engage in leadership roles and develop as teacher leaders (Szeto & Cheng, 2018). Through a distributed leadership theoretical lens (Spillane et al., 2004) and using Sinha and Hanuscin (2017) Teacher Leadership Development Process Model as a conceptual framework, my mixed methods research study addressed the need for additional literature by exploring the relationships between southern US public elementary school novice teachers' years of professional teaching experience and their perceptions of teacher leadership, their readiness for teacher leadership, and their engagement in informal and formal teacher leadership roles. The following methods section describes the mixed methods research design used to collect and analyze quantitative survey data and qualitative case study data (Creswell & Plano Clark, 2018).

A mixed methods approach was the most appropriate design choice for this research study because it allowed for a more complete understanding of the complex research problem (Creswell & Plano Clark, 2018) of how novice teachers develop as

teacher leaders and engage in leadership roles. Additionally, with a mixed methods design, a researcher can "collect a richer and stronger array of evidence than can be accomplished by any single method alone" (Yin, 2018, p. 63). In recent empirical research on teacher leadership, a mixed methods design has been used to find out how licensure requirements affect novice teacher leadership (Scales & Rogers, 2017), to investigate teacher's perspectives and readiness for teacher leadership (Tahir et al., 2020), and to explore how teacher education programs prepare novice teachers for teacher leadership roles (Muijs et al., 2013). This chapter provides the methodology's key elements for my study's quantitative and qualitative phases, including discussing the participants, procedures, instruments, data collection plans, data analysis plans, and threats to validity and reliability.

Research Questions

My mixed methods study used four research questions to contribute to the empirical research on novice teacher leadership development and engagement. The first three questions guided my research in the quantitative phase of the study, and the last question was used in the qualitative phase of the study to explore the quantitative results in greater depth.

RQ1: What difference, if any, exists between teachers' years of professional teaching experience and their identification as teacher leaders?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their identification teacher leaders.

RQ2: What difference, if any, exists between teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles.

RQ3: What difference, if any, exists between teachers' years of professional teaching experience and their engagement in teacher leadership activities?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their engagement in teacher leadership activities.

RQ4: How do public elementary school novice teachers perceive teacher leadership roles and teacher leadership engagement in their schools or district?

Research Design

An explanatory sequential mixed methods design was used for my research study in which quantitative data was collected in the first phase followed by "a subsequent qualitative phase to help explain the quantitative results" (Creswell & Plano Clark, 2018, p. 77). The explanatory sequential mixed methods design proved most useful for my study because it is a design that works well when "the researcher has the ability to return to participants for a second round of qualitative data collection" (Creswell & Plano Clark, 2018, p. 78). After exploring the correlation between novice teachers' years of professional teaching experience and their perceptions of teacher leadership, their readiness for teacher leadership, and their engagement in informal and formal teacher leadership roles, conducting an additional qualitative phase allowed me to gain "a richer

understanding of the subject under study" by providing further explanation of the relationships among the variables through interviews (Merriam & Tisdell, 2016, p. 48). Additionally, collecting qualitative data strengthened my research study by adding construct validity (Shadish et al., 2002).

In the study's quantitative phase, I collected data from public elementary school teachers using a 35-question survey. The survey contained eight questions that gathered demographic and experience information to explain the population and findings better. There were two questions about engagement in and identification of teacher leadership roles and activities and 25 questions from the Teacher Leadership Readiness Instrument (Katzenmeyer & Moller, 2009) related to teacher leadership readiness levels. With the quantitative data collected, I used descriptive statistics to draw conclusions and look at the relationships between the independent and dependent variables (Muijs, 2011). Inferential statistics were used to precisely compare the teachers' subgroups (Muijs, 2011) based on years of experience.

The qualitative phase of the study was conducted as a follow-up to the quantitative results to help explain exciting findings of the relationships between years of professional teaching experience and teacher leadership identification, readiness, and engagement levels. In this follow-up, I explored novice teacher leadership development through an instrumental case study approach (Stake, 1995), which allowed me to explore the broader issue of novice teacher leadership development and engagement instead of focusing on the novice teachers themselves. A single-case study with embedded units' design (Yin, 2018) was used to examine how and why novice teacher leadership development and engagement is or is not occurring within multiple school leadership

contexts. I interviewed novice teachers, administrators, and more experienced peer teachers to gain various perspectives. Furthermore, I collected distributed leadership artifacts (Spillane et al., 2004) from the participating school case sites to contribute to my study's trustworthiness with triangulation protocols (Yin, 2018).

Role of the Researcher

During my study, my role as the researcher was a formal teacher leader with state endorsement as a mentor teacher. I have served in numerous school and district teacher leadership roles involving curriculum development, school change/improvement, new teacher training, and the professional development of teachers. I also have my state certification as a school leader, or Educational Leader Level 1. During the research process, I was promoted to an instructional coach position at a public elementary school in one of the districts included in my study. However, I did not include any schools that I have previously taught at in the qualitative phase of my research, nor did I interview any former or current colleagues or administrators.

I conducted a careful self-analysis of my values and beliefs concerning my research questions for this mixed methods study. I value educators of all experience levels, have an immense passion for teaching and teacher leadership, and am a proponent of distributed leadership. It is my belief that novice teachers can be effective in teacher leadership roles and are capable of successfully engaging in informal and formal leadership opportunities. Novice teachers are vital to ensuring continued school success with the positivity and contagious enthusiasm they so often bring into a school environment. I think that novice teachers are less accepted in teacher leadership roles in public elementary schools than teachers with more than 5 years of experience and that

teachers' opportunities for leadership and advancement are often poorly communicated by schools and district leaders.

I hoped this study would show that aspiring novice teacher leaders are being utilized for leadership roles and are developing in the early stages of their professional teaching careers. If not, I hoped to provide new research findings that could help increase novice teacher leadership development and engagement in elementary public schools. I aimed to be mindful of how these beliefs could affect my study. I worked to reduce researcher bias by adhering to the specific and detailed research design that I created and working closely with my doctoral dissertation committee members throughout the entire research process. I also continuously checked that I adhered to my planned measures to increase the strength of my research design. To further increase trustworthiness, I had my methodologist conduct an extensive review of the findings and research results and remained in close contact with her throughout each step of my data collection and analysis phases.

Participants

The participants differed between the quantitative and qualitative phases of my mixed methods research study. The quantitative phase consisted of many participants who responded to my online survey while the qualitative phase consisted of a much smaller sample of interview participants. In this section, I first discussed the theoretical and accessible populations of the study. Participants in the quantitative phase are presented next, where I used descriptive statistics to provide demographic data on the survey respondents. Specific details and further information on the qualitative participants are described later in this chapter in the Case Selection section.

Participants in the Quantitative Phase

The theoretical population, or population generalized in the study (Trochim, 2020), included full-time public elementary school teachers of pre-k through fifth grade in the US. In the quantitative phase of my mixed methods study, the accessible population, or population included in the distribution of the survey (Trochim, 2020), was aimed to include full-time pre-k through fifth grade teachers from 86 traditional public elementary schools from 10 districts in a single region of a southern state in the US. However, not all districts chose to participate in my study. The region was composed of rural, urban, and suburban communities with approximately 800 thousand residents. The region's population consisted of primarily Caucasian residents, with African Americans as the largest minority group at 37%. Nearly 3% of the population was Hispanic.

I chose 10 school districts as a convenience sample due to proximity and the need to access a sample of the first group of participants for the qualitative phase of my study. Yet only six superintendents allowed their teachers to participate in the survey. These six participating school districts varied in size and demographics and contained 71 schools. The two largest districts had over 20 elementary schools each, while the other four districts had between three and nine elementary schools each. The districts had slight variations in performance levels as rated by the state's department of education. Four districts with a B overall performance score and the remaining two districts with a C overall performance score. The schools within the six districts varied in performance levels, ranging from performance scores from A's to F's. Within the total 71 schools, there were six A schools, 14 B schools, 21 C schools, 15 D schools, and 14 F schools. One school was not eligible to receive a performance score because it was a preschool

only. The 71 schools also varied in total student populations and the number of students categorized as economically disadvantaged, minority, disabled, and English Language Learning (ELL). The sampling frame for the survey was the school districts' websites, containing lists of all the applicable public elementary schools in the region and names and contact information for school district superintendents. As described in Chapter 1 as a delimitation of the study, private, charter, and online virtual schools were excluded from my research.

Only full-time professional teachers were included in the survey to answer the first three research questions on teacher leadership development and engagement, excluding paraprofessionals, teaching assistants, substitute teachers, and administrators. My rationale for including only elementary teachers in my study was based on previous empirical research findings. Angelle and DeHart's (2011) found that elementary teachers performed more teacher leadership roles than secondary teachers. My subgroups were determined by years of professional teaching experience that I collected through demographic questions in the survey. The four subgroups included teachers with 0 to 5 years of experience, 6 to 10 years of experience, 11 to 15 years of experience, and 16 or more years of experience. In my mixed methods study, teachers with 5 or fewer years of professional teaching experience were considered novice teachers, as described in the key concept terms section of Chapter 1.

When the survey closed, I had a total of 336 teacher responses. The survey return rate was estimated at 17%. From the 336 survey responses, I eliminated all surveys that were not complete. A total of 30 respondents completed only 27 percent of the survey, leaving 306 usable surveys for my quantitative data analysis. Next, I used stratified

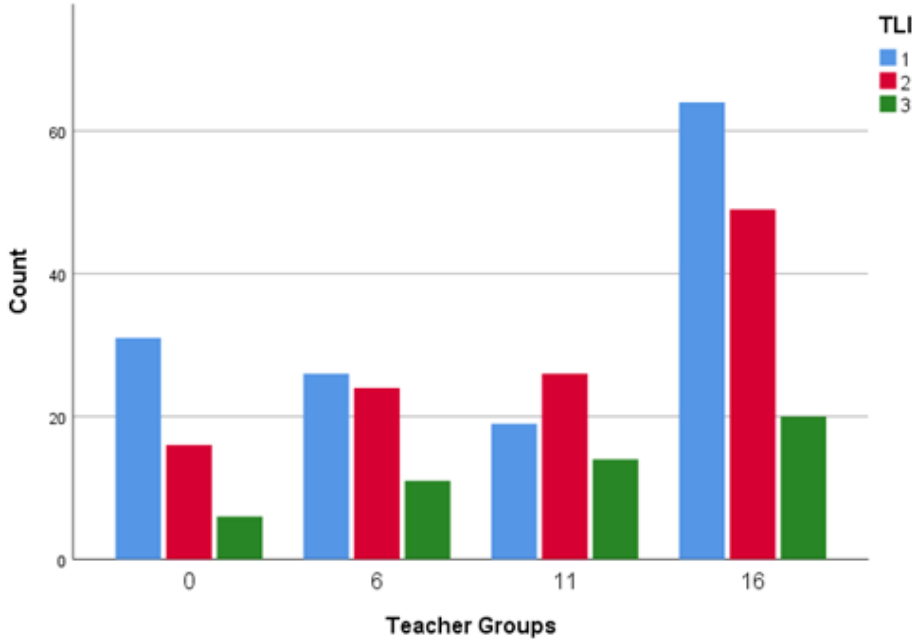
random sampling to ensure that at least 45 participants were included in the teacher subgroups (Abbott, 2011) according to their years of professional teaching experience. Stratified random sampling was appropriate for my study to "ensure that each of the crucial components of a population is taken into account" (Abbott, 2011, p. 155). The total number of participants for each subgroup totaled 53 novice teacher respondents with 0 to 5 years of experience, 61 experienced teacher respondents with 6 to 10 years of experience, 59 more experienced teacher respondents with 11 to 15 years of experience, and 133 veteran teacher respondents with 16 or more years of teaching experience. For data analysis, I labeled the teacher groups as 0, 6, 11, and 16.

I collected additional demographic and experience information from the 306 survey respondents, including gender, highest degree held, type of teacher certification program, participation in teacher observations or clinical field experience, school's geographic location, number of schools taught at, and number of grades taught. The total number of participants representing each of these categories is provided in Appendix E.

Finally, survey respondents were also asked to select how they identify as a teacher leader for the current school year. Overall, 140 participants identified as non-teacher leaders, 115 as informal teacher leaders, and 51 as formal teacher leaders. Figure 3.1 provides further information on how those numbers compare when divided into the teacher experience level groups. In Figure 3.1, the codes for TLI, or Teacher Leadership Identification, are as follows: 1 represents respondents who identify as non-teacher leaders, 2 represents informal teacher leaders, and 3 represents formal teacher leaders.

Figure 3.1

Simple Bar Count of TLI among Teacher Groups



Participants in the Qualitative Phase

In the qualitative phase of the study, the accessible population (Trochim, 2020) included full-time pre-k through fifth grade novice teachers, with less than 5 years of professional teaching experience, from at least four of the 71 traditional public elementary schools included in the survey. Additionally, qualitative data were collected from administrators and experienced peer teachers at each of the four schools selected. My rationale for this population was that the data collected in the qualitative phase of the study would be used to further explore the quantitative findings on novice teacher leadership development and engagement. The sampling frame for the qualitative phase was the provision of email addresses from survey respondents interested in volunteering for further participation in the study. I generated a list of possible case study candidates

from this sampling frame and used it in a two-phase approach to candidate screening, as recommended by Yin (2018).

Within the embedded, single-case design (Yin, 2018), novice teacher leadership development served as the context, individual novice teachers served as the case, and the embedded units of analysis were the differing school cultures, leadership styles, and school demographics. My rationale for using a single-case design was because the "objective is to capture the circumstances and conditions of an everyday situation" (Yin, 2018, p. 50). By examining novice teacher leadership within the school context, additional information could be collected on the social processes related to leadership development (Yin, 2018).

Ultimately, four novice teachers were selected as participants in the qualitative phase of my study. The novice teachers each represented four schools from three different public school districts within the southern US state used in the first phase of the mixed methods study. For triangulation purposes, four administrators, all school principals of the participating novice teachers, were also interviewed. Finally, three experienced peer teachers were also included in the interviews, for a total of 11 interview participants. These participants are discussed in more detail in the upcoming Qualitative Phase section under Case Selection.

Quantitative Phase

The first phase of the explanatory sequential mixed methods design involved collecting quantitative data (Creswell & Plano Clark, 2018) with a one-time use survey. This section provides details for the quantitative sampling methods used and the

procedures, instruments, data collection, data analysis, and threats to the validity of the quantitative phase of my study.

Sampling Methods

The sampling methods used for the quantitative phase of the study were determined by procedures and calculations appropriate for conducting an ANCOVA with four subgroups (Cohen, 1992). When comparing data from four subgroups in an ANCOVA, for a medium effect size (ES = .25), the minimum number of participants I needed to avoid statistical conclusion validity threats was 45 at $\alpha = .05$ (Cohen, 1992). Four subgroups brought the minimum total sample size that I needed to 180. With hopes of a 60% return rate on the surveys, at least 300 surveys needed to be distributed to the elementary schools to receive adequate teacher responses. From 71 public elementary schools from six districts in a single region of a southern state in the US, the sample size was large enough to obtain the required number needed for teacher subgroups.

Procedures

To begin collecting quantitative data, I first emailed a request to each of the 10 district superintendents that I hoped would be included in the sample. I created a Google Sheets workbook to keep track of my communication with each district. All emails to the superintendents followed the same template, providing a clear explanation of my request, specific details of my study's purpose, and the importance of the research. I offered the district leaders easy steps they could take to assist me with my research. Superintendents could either forward my email with the survey link to their elementary school principals and teachers or give me permission to email them on my own. My email specified that the survey was only applicable to full-time elementary school teachers serving pre-k

through fifth grade students. I also included a list of each districts' qualifying schools in the emails.

My Qualtrics survey (see Appendix A) was included in the emails as a bold link for public elementary school teachers to click on. The survey included the key concept terms included in Chapter 1, eight demographic and experience questions detailed in the next paragraph of the current chapter, one teacher leadership identification question, one teacher leadership engagement question, and 25 teacher leadership readiness survey questions. Participants were informed that it would take approximately 7 minutes to complete the survey and that no identifying information would be collected. Participants were ensured that all data would be kept confidential, and their identities would remain completely anonymous.

I informed the teachers that there would be no compensation or incentives for completing the survey. I also added a comment to describe how appreciative I was of them for taking the time to complete the survey. I included a brief description of why my study was significant to teachers and teacher leaders in the state. At the end of the survey, a question asked if they would be willing to participate further by volunteering for an interview. If they answered yes, they were provided with opportunities to type their email addresses to be considered for the second phase of the research study. If they chose no, they were taken to an end-of-survey completion page. I provided information in the email stating that all teachers selected for an interview would be entered to win a $50 Amazon gift card. Ultimately, 68 teachers volunteered to participate further by submitting their email addresses.

A 3-week window was allotted for the survey to be completed. After 2 weeks, I sent out reminder emails and followed up several times with district superintendents, assistant superintendents, chief academic officers, or curriculum supervisors. Although I began by contacting superintendents, some of them referred me to other district leaders as a point of contact for further communication purposes. Three superintendents never responded after three to five attempts of emailing and leaving messages. One superintendent declined to allow his teachers to participate, explaining that too many surveys had been sent out to his teachers recently. Two district superintendents required that I email the principals of each school and have them forward it to their eligible teachers. One superintendent had me email each elementary teacher in the district, totaling 1,089 teachers. Finally, three superintendents had other district personnel forward my email to their elementary principals and teachers.

Instruments and Measures

Qualtrics, an online software, was used to generate my one-time use, 35-question survey for participating public elementary school teachers (see Appendix A). The first eight survey questions obtained necessary demographic and experience information from the participants, serving as variables when making comparisons in the data analysis. The eight demographic and experience survey questions addressed the following topics: gender, highest degree held, type of teacher certification program completed, participation in teacher observations or clinical field experience, number of years of completed professional teaching experience, school's geographic location, number of schools taught at, and number of grades taught or different teaching positions held.

Question 9 of the survey answered RQ3 by measuring each participant's level of engagement in teacher leadership activities. I used York-Barr and Duke's (2004) dimensions of teacher leader practice to create a list of 20 activities to measure teacher leadership engagement. Teacher respondents selected any activities they had engaged in during the current school year at the school or district level. The activities listed for question 9 included the following:

- coordinating daily schedules or special events
- participating in administrative meetings and tasks
- monitoring grade level or school level improvement efforts
- defining curriculum outcomes or standards for your school or district
- selecting or developing curriculum for your school or district
- mentoring other teachers
- leading professional development workshops
- engaging in peer coaching
- modeling or encouraging professional growth for colleagues
- taking part in school-wide decisions
- working with peers for school change
- facilitating communities of teacher learning through organization-wide processes
- participating in education research or action research
- confronting barriers and challenging the status quo in your school's culture and structures
- becoming involved with parents or encouraging parent participation

- creating partnerships with community businesses
- working with the community and community organizations
- participating in professional organizations
- becoming politically involved
- building partnerships with colleges and universities to prepare future teachers

After data collection, I divided the 20 teacher leadership activities from question 9 into York-Barr and Duke's (2004) seven teacher leadership activity categories or dimensions of practice. The seven categories of teacher leadership activity included the following: Coordinator/Management, School/District Curriculum Work, Professional Development of Colleagues, Participation in School Change/Improvement, Parent and Community Involvement, Contributions to the Profession, and Preservice Teacher Education. I used these categories during my quantitative data analysis to interpret the teacher respondents' levels of teacher leadership engagement.

Question 10 of the survey answered RQ1 by measuring each participant's identification as a teacher leader. I used Katzenmeyer and Moller's (2009) definitions of formal and informal teacher leadership roles to provide options for teachers to choose how they identified as teacher leaders. The choices included:

- I do not have a teacher leader role this year because I do not engage in teacher leadership activities, and I do not have a formal teacher leader title.
- I have an informal teacher leader role this year because I engage in teacher leadership activities, but I do not have a formal teacher leader title.

- I have a formal teacher leader role this year because I engage in teacher leader assigned activities and have a formal teacher leader title provided by my administration, district, or state certification.

Questions 11 through 35 answered RQ2 of the study by measuring each participant's level of readiness for teacher leadership roles. I used Katzenmeyer and Moller's (2009) Teacher Leadership Readiness Instrument for this survey portion. This instrument was created as a tool to measure readiness for teacher leadership with teachers who were unfamiliar with the idea of teacher leadership (Katzenmeyer & Moller, 2009). The Teacher Leadership Readiness Instrument is a published tool that is authorized for use by educators who have purchased the book. I chose this survey tool because it has proven helpful for novice teachers and experienced teachers in determining whether they are ready to take on teacher leadership roles (Katzenmeyer & Moller, 2009). The instrument contained a scoring protocol with a 5-point Likert scale, ranging from strongly disagree to strongly agree. As advised by my dissertation committee methodologist, I did not use Katzenmeyer and Moller's provided scoring protocol to determine each respondent's teacher leadership readiness level. Instead, I used four factors derived from an exploratory factor analysis on the survey. These factors are discussed later in this chapter when I detail the steps taken to test the validity and reliability of the survey.

The use of a survey for this type of research study is very common, as they are the most popular research design in the social sciences (Muijs, 2011). For example, Akert and Martin (2012) used a Teacher Leadership Roles Survey to measure the perceptions of teachers and administrators regarding the teacher leadership concept and school improvement. Findings from their quantitative study indicated that administrators placed

more importance on teacher leader roles and their impact on school improvement than the teachers (Akert & Martin, 2012). Another recent empirical research related to teacher leadership using a survey is Derrington and Angelle's (2013) study on teacher leadership and collective efficacy. In their study, 719 teachers from 50 schools completed a Teacher Leadership Inventory to determine that there was indeed a strong relationship between the collective efficacy of a faculty and the extent of teacher leadership in a school (Derrington & Angelle, 2013). Additionally, Angelle and DeHart (2011) used the same instrument, the Teacher Leadership Inventory, in a study to determine that there were significant differences between the position of a teacher, their degree level, and their level of experience with respect to their perceptions of teacher leadership in their schools.

Katzenmeyer and Moller (2009) Teacher Leadership Readiness Instrument has been used in previous recent teacher leadership empirical research studies (De Villiers & Pretorius, 2011; Sawalhi & Chaaban, 2019; Tahir et al., 2020). First, De Villiers and Pretorius (2011) used the survey on teacher perceptions of and readiness for teacher leadership in their quantitative study. De Villiers and Pretorius used a purposive sampling of teachers and administrators from 61 schools in the Western Cape province of South Africa. Although the researchers mentioned evaluating the internal consistency reliability of their instrument with scale reliability testing, no precise details or results were provided regarding the testing. A second study that used Katzenmeyer and Moller's Teacher Leadership Readiness Instrument is Sawalhi and Chaaban's (2019) qualitative study on teacher leadership development and awareness. Sawalhi and Chaaban used the survey to triangulate their data when exploring how six student teachers from Qatar perceived teacher leadership after completing their teaching practica. The researchers

also examined what factors influenced their changing perceptions (Sawalhi & Chaaban, 2019) but did not provide information regarding tests conducted on the survey instrument's reliability. The third study in which researchers have used the Teacher Leadership Readiness Instrument is Tahir et al.'s (2020) mixed methods research on teacher perspectives and readiness for teacher leadership. Tahir et al. did not use the survey in its entirety, having measured teacher leadership readiness with items from Katzenmeyer and Moller's survey instrument, as well as other self-developed items. The researchers provided details on the internal consistency coefficient from a pilot test on 130 teachers who were not included in the study's primary sample. Tahir et al. reported a coefficient of internal consistency at 0.929, which "indicated a strong internal consistency of the instrument" (p. 291).

Exploratory Factor Analysis

I took several steps to test the validity and reliability of Katzenmeyer and Moller's (2009) Teacher Leadership Readiness Instrument since previous researchers inconsistently reported it. With assistance from my methodologist, I investigated the internal validity of the survey with an exploratory factor analysis using SPSS (Muijs, 2011). After the factor analysis was run, the scree plot and total variance explained were used to determine the validity of the survey. The factor analysis results were then connected with the empirical literature on teacher leadership readiness. Finally, internal consistency tests were run on the survey as a whole and for each factor to calculate Cronbach's alpha to ensure that an acceptable level above 0.7 was achieved (Muijs, 2011).

To begin testing the survey's validity and reliability, I tested assumptions by assuring that there were no dichotomous items, that the sample was homogeneous, and that there were no outliers in the data (Muijs, 2011). Next, I ran an exploratory factor analysis on the 25 Teacher Leadership Readiness items with Varimax rotation. Five factors loaded with eigenvalues above one, explaining 57% of the variance. Although a great variance was explained, items 7 and 6 loaded ambiguously, and component 5 only had two items with an eigenvalue of only 1.06. I re-ran the exploratory factor analysis and forced four factors (see Table 3.1). Although the total variance explained decreased to 53%, the resulting factors showed less ambiguity and had more items.

Table 3.1

Results from a Factor Analysis of the Teacher Leadership Readiness (TLR) Instrument

Factor	Eigenvalue	% of Variance
Factor 1	8.57	34
Factor 2	1.77	7
Factor 3	1.65	7
Factor 4	1.19	5

Next, the final four factors were named based on previous empirical research findings that identified attributes needed for effective teacher leadership and factors that affect novice teachers' interest in teacher leadership roles (see Appendix C). Factor 1 was named *Self efficacy and value as a teacher* based on previous findings that suggest teachers' self-confidence in their teaching abilities and content knowledge increases teacher leadership readiness (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020). Factor 2 was named *Willingness to take on school leadership responsibilities* based on previous research findings that suggest teachers ready for leadership roles must

be prepared to take on extra responsibilities as an educator (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020). I named factor 3 *Teacher autonomy beliefs* since previous research suggests that many beginning teachers perceive their lack of experience as a source of their unpreparedness for teacher leadership (Carver & Meier, 2013; Tahir et al., 2020). Finally, factor 4 was referred to as *Willingness to help other teachers* since experts in the field have identified teachers' abilities and willingness to collaborate with peer teachers as a necessary characteristic for effective teacher leadership (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020).

Internal Consistency Tests

For the last step in checking the instrument's validity and reliability, I ran internal consistency tests on the survey as a whole and then for each factor individually. Chronbach's alpha showed a reliability of .907 for the entire instrument. Cronbach's alpha for the individual constructs showed a reliability as follows: *Self efficacy and value as a teacher* (.879), *Willingness to take on school leadership responsibilities* (.810), T*eacher autonomy beliefs* (.634), and *Willingness to help other teachers* showed (.717).

Data Collection and Analysis

SPSS was used to analyze the data collected from Qualtrics. A one-way ANOVA was used to measure the statistical differences for each of the first three research questions. This statistical test was chosen because it allows the researcher to compare several different groups at a time (Abbott, 2011). Since my research questions had several levels of one independent variable, I was able to "use the one-way ANOVA to detect any differences among the sample groups" (Abbott, 2011, p. 257). For RQ1, the dependent variable was the teachers' identification as teacher leaders, and the

independent variable was their years of teaching experience. For RQ2, the dependent variable was the teachers' levels of teacher leadership readiness, and the independent variable was their years of teaching experience. For RQ3, the dependent variable was the teachers' engagement in teacher leadership roles, and the independent variable was their years of teaching experience.

In addition to the one-way ANOVAs, I conducted factorial ANOVAs for each research question to elaborate on the quantitative findings and identify any interactions between the variables (Abbott, 2011). Running the factorial ANOVAs allowed me to identify the differences in the respondents' teacher leadership identity, readiness, and engagement levels by years of teaching and the additional independent variables. The additional variables included degree, teaching program, teacher training, school location, number of schools taught at, and number of grades taught. Although each respondent's gender identification was also collected, it was not ultimately included as a variable because all but two teacher respondents identified as female.

Another consideration that I had to make regarding the additional independent variables was that there may have been some correlation between years of teaching experience and number of schools taught at. For example, it could be likely that someone who has taught at multiple schools also has more years of teaching experience. As a result, I tested the collinearity between the two variables by getting Pearson's coefficient. The result of the Pearson's correlation test was $r = .405$. Since there was not a strong correlation between years of experience and number of schools, I kept both variables.

Assumptions for each ANOVA were tested to ensure that the data were normally distributed in each group and that there was homogeneity of variances (Muijs, 2011).

Descriptive statistics were run and analyzed to check for skewness and kurtosis levels between -2.0 and +2.0 (Muijs, 2011). All levels fell within this range, so no non-parametric tests were needed. I ran Levene's Test for Homogeneity of Variances to ensure that there were no differences between the groups and that the p-value was < 0.05 (Muijs, 2011). Levene's test on RQ3 did indicate unequal variances, so I conducted Welch's ANOVAs instead of one-way ANOVAs. I also ran post-hoc tests after my significant ANOVAs to identify differences between the groups. For RQ1 I used Tukey's HSD to make post-hoc comparisons. However, for RQ3 I used Games-Howell for post-hoc comparisons because I had unequal variances. Once all assumptions were met, I analyzed the quantitative data and made multiple comparisons using the different variables.

Threats to Validity

Research design tests can be used to judge the quality of empirical social research (Yin, 2018); however, the terms and definitions to describe this topic has been an extensive debate among researchers (Merriam & Tisdell, 2016). Researchers refer to them as tests of validity and reliability for quantitative studies. Yet, in qualitative research, they are referred to as tests of trustworthiness and rigor (Merriam & Tisdell, 2016). Validity refers to the strength of the conclusions derived from the findings (Shadish et al., 2002), while "reliability refers to the extent to which the findings can be replicated" (Merriam & Tisdell, 2016, p.250). For the quantitative phase of the current study, I accounted for threats to the statistical conclusion validity, internal validity, construct validity, external validity, and social validity, as recommended by Shadish et al. (2002).

The possible threats to the statistical conclusion validity of this study included a *low statistical power threat* caused if there are not enough participants to complete the survey or not enough respondents in one or more of the subgroups, an *unreliability of scores from instruments threat* caused by using an instrument that has not been proven as reliable and valid, and a *heterogeneity of units threat* caused by the participants involved in the study being too different with too many possible explanations for their differences (Shadish et al., 2002). These threats were minimized by sending out more than double the number of surveys needed to provide a sufficient sample size; by conducting extensive validity and reliability tests on the survey instrument before the study; and by providing specific definitions about the population of the study, the subgroups of novice teachers, and by including additional demographic information to be completed by each participant.

The possible threats to the internal validity of this study included a *selection threat* caused by differences in the elementary school conditions from the six districts included in the study; a *history threat* caused by conducting the survey at an inopportune time of the school year; and an *attrition threat* caused by the length of the survey leading to participants not completing it, as suggested by Shadish et al. (2002). These threats were minimized by first including schools with various professional climates, leadership styles, demographics, and performance scores and reporting those differences in the research. Second, I emailed out my survey during early spring to avoid stressful and overwhelming times for teachers during the beginning and end of the school year. Finally, I provided participants with an estimate of how long the survey would take them

to complete so they would know in advance what to expect and provided 3 weeks to complete the survey.

The possible threats to the construct validity of my study included an *inadequate explication of constructs threat* caused by varying interpretations of definitions of variables, such as novice teachers, rural and urban school locations, and formal and informal teacher leadership roles; and a *mono-method bias threat* caused by using only self-reported data from a survey in the study, as suggested by Shadish et al. (2002). These threats were minimized by providing specific definitions for key concepts about the participants, variables, and settings and adding a qualitative component to the study with a single-case study with embedded units' design to collect data from multiple stakeholders (Yin, 2018).

The possible threat to the external validity of this study included an *interaction of the casual relationship with the unit's threat* caused by other factors contributing to levels of teacher leader readiness besides their years of experience, as suggested by Shadish et al. (2002). This threat was minimized by including eight demographic and experience information questions with the survey to account for other variables that may affect the data.

Finally, the possible threat to the social validity of this study included *participants who do not understand the purpose of the intervention threat* caused by participants not completing the survey because they were not provided with enough information to understand its significance (Shadish et al., 2002). This threat was minimized by including a brief, informative, and persuasive section in the survey participation request email.

In conclusion, I attentively addressed as many threats to my study's external and internal validity as possible by addressing statistical conclusion validity, internal validity, construct validity, external validity, and social validity with caution and precision. By ensuring that these threats were not overlooked, I added considerable reliability to the quantitative phase of my study and allowed my results to be considered valid and accurate.

Qualitative Phase

The second phase of my mixed methods study consisted of a qualitative single-case study with embedded units' design (Yin, 2018) that allowed for a more in-depth look into how and why novice teacher leadership development and engagement was or was not occurring within multiple school leadership contexts. This section provides details for the qualitative research design, case selection, data collection, data analysis, and threats to the trustworthiness and rigor of the qualitative phase of the study.

Research Design

Qualitative research "is based on the belief that knowledge is constructed by people in an ongoing fashion as they engage in and make meaning of an activity, experience, or phenomenon" (Merriam & Tisdell, 2016, p. 23). Additionally, qualitative research studies focus on quality instead of quantity and the meaning and understanding of a phenomenon in the social world by describing how people interpret their experiences and what they attribute to them (Merriam & Tisdell, 2016). I chose a single-case study with embedded units' design for the qualitative phase of my mixed methods research study due to the type of phenomenon being studied and the research question guiding the study (Yin, 2018). This design allowed me to explore novice teacher leadership

development and engagement more deeply by examining the perceptions of novice teachers, administrators, and more experienced peer teachers. Furthermore, my examination of specific school leadership styles provided the context for each embedded unit and allowed me to identify how distributed leadership contexts could affect novice teacher leadership development and engagement.

Case Selection

Purposeful sampling (Merriam & Tisdell, 2016) was used to select participants for the embedded single-case study. Criterion-based sampling is appropriate in qualitative research because it allows case study researchers to attain participants according to the most critical attributes to the study (Merriam & Tisdell, 2016). A two-phased approach was used to collect a sample from the population because there were likely to be more than 12 case study candidates available (Yin, 2018). A two-phased approach allowed for appropriate case selection, which was done based on maximizing what could be learned, balance and variety, and a sampling of attributes (Stake, 1995).

First, through volunteer sampling (Muijs, 2011), a population of case study candidates was generated from 68 teachers who volunteered to participate further in my mixed methods study. These volunteers provided their email addresses at the end of the survey. I took those email addresses and compiled them into a teacher volunteer database using Google Sheets. The second phase of case selection (Yin, 2018) required narrowing down by specific criteria requirements to a minimum of four novice teacher participants. The total number of qualifying novice teacher volunteers to select from was 14.

I aimed to select my novice teacher participants based on criteria that allowed for a diverse case study sample. This was determined by the volunteers' answers to the

demographic and experience questions at the beginning of the survey. The case study participants were also selected from various schools and districts throughout the same region of the southern US state that was used in the first phase of the mixed methods study. I determined this based on school geographic and demographic information collected through the district and school websites. Participants from rural, urban, and suburban districts and different public elementary schools were chosen to represent diverse student populations. I also attempted to obtain participants from multiple ethnicities and racial groups and have representation from both male and female teachers in the sample. However, this was impossible since I had no male novice teacher volunteers. I was not surprised by this since males make up less than 20% of the national teaching population, as reported in 2019 by the US Bureau of Labor and Statistics (2020). Finally, based on Katzenmeyer and Moller's (2009) definitions of formal and informal teacher leadership roles, I interviewed participants who varied in their teacher leadership identity.

To begin the second phase, I selected and emailed seven of the 14 novice teachers and provided them with the details of the qualitative research process. In the email, I included details about how each teacher would be asked to participate in at least one semi-structured interview and provide access to various teacher leadership artifacts if needed. I informed the novice teachers that one administrator and one experienced teacher from the same school and grade level would be contacted and requested to participate in the study. The novice teachers were informed that any information they provided during the interviews would not be shared with the administrator or the other

teacher. I reminded them that all data would remain anonymous throughout the entire study.

Ultimately, four novice teachers responded to my email and agreed to participate in the qualitative phase of my research. The four selected participants represented four different schools from three different public school districts within the southern US state used in the first phase of the study. The schools represented a diverse population of students, consisting of one A school in a suburban location, one B school in a rural location, one C school in a rural location, and one F school in an urban location. School letter grades were based on school performance scores provided by the state department of education. Additionally, the four novice teacher participants varied in their teacher leadership identification, including one formal teacher leader, two informal teacher leaders, and one non-teacher leader.

After finalizing my selection of the four novice teacher participants, I emailed the school principals of each qualifying case study volunteer to determine if they were interested in participating in the study. Each principal was provided with details about what would be involved to participate in the study, and each was asked to agree to one semi-structured interview lasting no more than 1 hour. After several emails and a few phone calls, all school principals ultimately decided to participate in the study.

To gain experienced teacher participants, I asked each novice teacher to choose one to three experienced teachers from his/her school whom he/she thought would agree to participate. The experienced teachers had to have more than 5 years of professional teaching experience and were preferred to be from the same grade level as the participating novice teacher. The novice teachers were asked to provide me with email

addresses for those teachers. Each experienced teacher participant was asked to agree to one semi-structured interview lasting no more than 1 hour. In the end, only three of the four schools had an experienced teacher who participated in the study for a total of 11 participants in the qualitative phase. All participants in the qualitative phase were asked to sign informed consent agreements as required by law.

To maintain anonymity, I gave each participant a label that was used in all transcripts, documents, databases, and discussions of the results (see Table 3.2). In this study's data analysis and results sections, individual schools are referred to as School Site 1, School Site 2, School Site 3, and School Site 4.

Table 3.2

Qualitative Phase School Site Demographic and Performance Data

District	*School*	*Location*	*Grades*	*Student Population*	*School Performance Score*	*Participants*
District 1	School Site 1	Rural	K-2	455	C	NTA Admin A
District 2	School Site 2	Urban	PK-5	507	F	NTB Admin B ETB
District 3	School Site 3	Rural	PK-12	559	B	NTC Admin C ETC
District 4	School Site 4	Suburban	K-5	717	A	NTD Admin D ETD

Additionally, the novice teacher participants were referred to as Novice Teacher A (NTA), Novice Teacher B (NTB), Novice Teacher C (NTC), and Novice Teacher D (NTD). School principals, or administrator participants, are referred to as Admin A,

Admin B, Admin C, and Admin D. Finally, the experienced teacher participants are referred to as Experienced Teacher B (ETB), Experienced Teacher C (ETC), and Experienced Teacher D (ETD). No data were collected from Experienced Teacher A (ETA) because she withdrew from participating after originally agreeing to be interviewed. I was unable to replace her due to time constraints.

Data Collection

Since qualitative research aims to gain understanding, the researcher of a case study is the primary instrument for data collection (Merriam & Tisdell, 2016). In the qualitative phase of my study, I collected data from multiple sources of case study evidence, including interview data, observation/reflection data, and online data (Merriam & Tisdell, 2016; Yin, 2018). Each of these sources is described in detail in this section. Additionally, Table 3.3 provides a visual aid with further information on how data were collected from each source and for what purpose in relation to my research questions. The collection of data and interpretation of information categories was driven by the qualitative research question of the study (Stake, 1995), RQ4, which examined perceptions of novice teacher leadership engagement from novice teachers. Additionally, Sinha and Hanuscin's (2017) Teacher Leadership Development Process Model, the conceptual framework of the study, served as a guide in collecting evidence of novice teacher leadership development and engagement. A data collection plan was used to maintain organization during this portion of the research study, consisting of the definition of the case, a list of the research questions, identification of helpers, a list of data sources, allocation of time, and intended reporting (Stake, 1995).

Table 3.3

Data Collection and Purpose

Data Source	How Collected	When Collected	Connections to Research Questions
Novice Teacher Interviews	Audio recording on iPhone for in-person interviews using Sonix - Online audio and video transcription software	One interview after school at the participants' convenience, lasting about one hour	Provides insight into their perceptions of teacher leadership, readiness for teacher leadership roles, and engagement in teacher leadership activities
Administrator and Experienced Teacher Interviews	Audio recording on iPhone for in-person interviews using Sonix - Online audio and video transcription software One-to-three-page typed observation notes	One interview after novice teacher interview, after school at the participants' convenience, lasting about one hour	Provides insight on their views of teacher leadership, how experienced and novice teacher leadership is enacted or facilitated at their school, and what their perceptions are of novice teachers engaging in teacher leadership roles
Observation/ Reflection Notes	One-to-three-page typed observation notes per interview	Observation notes were typed immediately following the interviews	Provides thick, rich descriptions of the school setting, mannerisms and personality of the participant, summaries of the interview, and personal reflections about the encounter and responses
Online Data from district, school, and teacher websites, and social media apps including Twitter, Facebook, and Instagram	Data reviewed or printed out, documented in tables in Google Sheets	After participant selection and before the interviews	Provides supporting evidence of teacher leadership development, engagement, school culture, and levels of distributed leadership

Interviews

Interviews are one of the most important sources of data collection in case study research (Yin, 2018). Three types of interviews are used in case study research data collection, including prolonged case study interviews, shorter case study interviews, and survey interviews (Yin, 2018). Shorter case study interviews or interviews lasting about an hour (Yin, 2018) were used for the current research and were scheduled via email at the participants' convenience. A semi-structured format was followed, using a list of predetermined interview questions for novice teachers, experienced teachers, and principals (see Appendix B). Interview questions were formed around what needed to be explored based on results from the quantitative phase of the study and based on the study's research propositions (Stake, 1995). Before proceeding with the interviews, an interview protocol test was conducted. I emailed the questions to three public elementary school teachers and asked them to review the questions and let me know if there were any confusing words or language. I also tested the protocol on a novice teacher at my current school by asking her the questions in mock interview. No changes were made to the interview questions based on my peer teachers' comments.

All interviews were conducted in person with necessary precautions due to COVID-19 protocols and restrictions. All participants' interview responses were audio recorded on my iPhone and transcribed using Sonix online transcribing software. Member checking (Merriam & Tisdell, 2016) was used for each novice teacher's interview data by sharing the transcriptions with the participants using Google Docs. I asked the teachers to review their interview data and check it for accuracy. Only one novice teacher participant chose to make edits to her transcript. The changes were minor

with the participant citing that she did not like how "how she sounded" and how many times she used the word "like."

In addition to the transcribed interview data, I conducted physical notetaking using the interview protocol sheet (see Appendix B) during and immediately following each interview. Within 1 hour of each novice teacher, principal, and experienced teacher interview, I typed out as much observation, summarization, and reflection data as I could to document what I saw and heard throughout the entire school site visit. I reported information regarding school contexts and school leadership styles in relation to observed levels of distributed leadership (Spillane et al., 2004). My focus on distributed leadership contexts during the interviews allowed me to understand better what specific school contexts promote novice teacher leadership development and engagement when aligned with the collected evidence.

Online Data

My final source of data was in the form of online data (Merriam & Tisdell, 2016). From each school in the case study, online data included school performance scores, district performance scores, student population totals, student demographic percentages, teacher demographic information, and school technology ratios. I accessed all of this information from the state department of education websites and public school district websites. Next, I scanned school websites and social media apps, including Twitter, Facebook, and Instagram, to gather information on school culture, leadership style, events, sports, clubs, and activities. I looked for evidence of school culture that indicated examples of teacher collegiality, learning partnerships, and personal involvement of teachers. Lastly, if available, each novice teacher's class website was viewed to obtain

additional information on teacher leadership engagement, classroom culture, events, and activities. The online data were carefully reviewed, and all relevant details pertaining to the research problem were recorded in tables using Google Sheets. The use of a Google Sheets workbook provided a qualitative database that allowed for easier data analysis with a high level of organization.

Data Analysis

The qualitative data set for analysis in the second phase of my research study included interview transcripts data, observation and reflection data, and online data tables. I manually coded each of my 11 interview transcripts using Google Docs and Google Sheets rather than using coding software. This type of coding by hand allowed me to have "more control and ownership of the work" (Saldaña, 2016, p. 29). By applying codes or codifying, the qualitative data could then be arranged in "a systematic order, to make something part of a system or classification, to categorize" (Saldaña, 2016, p. 9). I placed all coded data with similar characteristics into categories, and the categories were then combined into themes or concepts to make assertions from the research findings (Saldaña, 2016).

To begin this process, I pre-coded the qualitative data during the interviews with careful notetaking (Saldaña, 2016) using my interview protocol. This step allowed me to organize my interview transcripts in Google Docs better. Next, for my first coding cycle, I used concept coding as an analytic strategy, an appropriate coding method for "studies with multiple participants and sites, and studies with a wide variety of data forms'' (Saldaña, 2016, p. 120). I carefully went through each interview transcript and unitized words, sentences, and paragraphs as concepts using the comment feature in Google Docs.

Then, I copied each concept from the transcripts and pasted them into my Google Sheets qualitative database. The first round of concepts were sorted by source and by my initial 11 categories. The first 11 categories, derived from my theoretical and conceptual frameworks, included:

- Teacher Leadership Defined
- Informal Teacher Leadership
- Formal Teacher Leadership
- Teacher Leadership Opportunities at Current School
- Teacher Leadership Opportunities in Current District
- Teacher Leadership Identification
- Teacher Leadership Engagement
- Effects of Years of Experience on Teacher Leadership
- Acceptance as a Novice Teacher Leader
- Leadership Role Models
- Feedback/Recognition/Encouragement.

Within the initial 11 categories, my first round of coding contained 196 individual concepts.

For my second coding cycle, I used pattern coding to identify emergent themes and explanations in the data for more meaningful analysis (Saldaña, 2016). Pattern coding works well in the second coding cycle of qualitative data analysis because it helps to examine social networks and identify patterns of human relationships (Saldaña, 2016). To begin, I listed all 196 concepts vertically under the 11 categories. I worked within each category to look for patterns and color-coded all concepts that could be combined. I

was then able to easily create a code for each color group. From my second round of coding, I condensed 196 concepts to 64 codes in the 11 categories.

Finally, in the third coding cycle I condensed the 11 categories into four basic themes based on my second round of codes. To do this, I sorted my 64 codes into the 11 categories. I used color-coding again to identify patterns and combine categories. After that, I could easily condense my categories down to four themes. The final themes included Effective Teacher Leadership, Teacher Leadership Roles, Opportunities and Development, and Acceptance and Support. Within these themes, I then condensed my 64 codes to 15 codes (see Table 3.4).

Table 3.4

Final Interview Data Themes and Codes

Theme	Codes
Effective Teacher Leadership	Leadership Personality Personal Drive Communication Professionalism and Ethics Pedagogical Knowledge Teaching Experience
Teacher Leadership Roles	Informal Teacher Leadership Formal Teacher Leadership
Opportunities and Development	Teacher Leadership Development Teacher Leadership Engagement Teacher Leadership Aspirations Changing Schools and Districts
Acceptance and Support	Years of Experience Personality and Leadership Skills Administrator Support Peer Support

Using my themes, I reorganized all the data into separate Google Sheets within my qualitative database. I sorted each quote by theme, code, and participant. The last step

was to add in my triangulation data. I sorted and added my administrator interview transcript data, experienced teacher interview transcript data, observation/reflection document data, and online data.

Ultimately, three rounds of coding allowed me to thoroughly analyze all my qualitative data. The entire coding process allowed me to effectively interpret the results of the qualitative phase of my research and make valuable connections to the quantitative data previously analyzed.

Trustworthiness

Research design tests can be used to judge the quality of empirical social research (Yin, 2018). In qualitative studies, these tests are referred to as tests of trustworthiness and rigor (Merriam & Tisdell, 2016). Four types of tests are commonly used for research design assessment in case study research, including tests of construct validity, internal validity, external validity, and reliability (Yin, 2018). In the qualitative phase of the current study, these tests were conducted to ensure a high level of trustworthiness and rigor of the research results.

To test a research design's construct validity is to test that the research methods allowed for correctly measuring what was intended to be measured for the study (Yin, 2018). In case study research, testing for construct validity is particularly challenging (Yin, 2018). To increase the construct validity of the qualitative phase of the current study, I used data source triangulation by collecting multiple sources of evidence. I also established a chain of evidence by using Google Docs for transcripts and notes evidence, Google Docs' comment feature for concept coding evidence, and a Google Sheets' workbook for a qualitative database and pattern coding evidence. These steps were taken

because triangulation allows the researcher to conduct a deeper understanding of the phenomenon in its real-world context while a chain of evidence allows the reader to accurately retrace the steps of the research process from beginning to end (Yin, 2018).

To test a research design's internal validity is to test a causal relationship and establish that one condition did in fact lead to another condition (Shadish et al., 2002; Yin, 2018). Internal validity also deals with establishing the credibility of the research findings and how well those findings match reality (Merriam & Tisdell, 2016). To increase the internal validity of the qualitative phase of the current study, thick, detailed descriptions of the participants and the settings were recorded during data collection (Shenton, 2004). These detailed descriptions increased credibility by conveying "the actual situations that have been investigated and, to an extent, the contexts that surround them" (Shenton, 2004, p. 69). Pattern matching and explanation building were used in the analytic phase and rival explanations of the findings were addressed (Yin, 2018). Member checking was used to increase credibility by providing participants with a chance to review the draft reports from the interviews (Merriam & Tisdell, 2016; Shenton, 2004). Triangulation was used to increase the internal validity of the study and explore and strengthen emerging findings, as recommended by Merriam and Tisdell (2016). I increased triangulation by using multiple methods of research, including quantitative and qualitative, and multiple sources of data, including interviews with novice teachers, experienced teachers, and principals.

To increase the external validity of the qualitative phase of my study, specific tactics of careful planning were implemented and documented during the research design phase (Yin, 2018). To test a research design's external validity is to test whether and how

the research study's findings can be generalized (Yin, 2018). Shadish et al. (2002) explained, "external validity as the question of generalizability: To what populations, settings, treatment variables, and measurement variables can this effect be generalized" (p. 97). Shenton (2004) describes this as "transferability," since providing a thick description of the phenomenon being studied allows "readers to have a proper understanding of it" (p. 70) so that they can then determine how far the results of the study can be transferred to other situations. Therefore, as mentioned previously, a thick description of the participants and the settings were provided to aid in developing generalizations of the research findings.

Reliability in qualitative research is the extent to which the operations of a study can be replicated or repeated to yield the same or similar results (Merriam & Tisdell, 2016; Yin, 2018). Reliability in case study research can be increased by accounting for four sections of case study protocols, as described by Yin (2018). First, I established a good overview of the study, listing out the objectives, propositions, theoretical framework, and key readings. This overview was compiled into a Google Slides presentation and used to propose my dissertation study to my committee. Next, I adhered to appropriate data collection procedures to protect the participants' identities and the data. Third, I created and answered interview protocol questions specific to my study on novice teacher leadership development. Fourth, I created a tentative outline for the case study report to establish the data format and use of all documentation. Finally, the reliability of the study was increased by creating a case study database that kept qualitative data separated in a safe and retrievable form and maintaining a chain of evidence that is comparable to an audit trail (Stake, 1995; Yin, 2018).

Summary of Methods

The methodology for my study was used to identify the differences that exist between southern US public elementary school novice teachers' years of professional teaching experience and their perceptions of teacher leadership, their readiness for teacher leadership, and their engagement in informal and formal teacher leadership roles. Taking an in-depth look at how novice teachers are developing as teacher leaders and engaging in teacher leadership practice will contribute to a need for additional research on novice teacher leadership. The findings of this research could provide new evidence to support the equal distribution of teacher leadership roles to all teachers, not just those with higher levels of professional teaching experience.

The explanatory sequential mixed methods design and key elements of the study's quantitative and qualitative phases were discussed, including the participants, procedures, instruments, data collection plan, data analysis plan, and the threats to validity. These details about the research methodology will provide future researchers with the information needed to replicate this study. Demographic and experience information questions and answer choices from the survey were included. I also included the survey questions from the Teacher Leadership Readiness Instrument (Katzenmeyer & Moller, 2009) in Appendix A. Detailed descriptions of the methods used during the qualitative phase of the study were presented, along with information about the data collection and data analysis protocols. My study will add to teacher leadership research by providing a greater understanding of how novice teachers are developing and engaging as teacher leaders.

CHAPTER 4

RESULTS

The purpose of this research study was to understand better how novice teachers are developing as teacher leaders and engaging in teacher leadership roles. My research problem was to address the gap in the literature on novice teacher leadership development from novice teachers' perspectives (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017). This study aimed to provide new evidence supporting equal distribution of teacher leadership roles and increased leadership opportunities for teachers with lower professional teaching experience.

For this study, I used a mixed methods research design to collect and analyze quantitative survey data and qualitative case study data (Creswell & Plano Clark, 2018). Four research questions guided my study in adding to the empirical research on novice teacher leadership development. These questions included:

RQ1: What difference, if any, exists between teachers' years of professional teaching experience and their identification as teacher leaders?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their identification teacher leaders.

RQ2: What difference, if any, exists between teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their levels of readiness for teacher leadership roles.

RQ3: What difference, if any, exists between teachers' years of professional teaching experience and their engagement in teacher leadership activities?

H_0: There is no difference between public elementary school teachers' years of professional teaching experience and their engagement in teacher leadership activities.

RQ4: How do public elementary school novice teachers perceive teacher leadership roles and teacher leadership engagement in their schools or district?

These research questions were directly connected to my research problem and focused on the components that have been identified as key factors in teacher leadership development through my conceptual framework.

This chapter provides extensive details of the data analysis process and presents both the quantitative and qualitative results. Quantitative data analysis and results are presented first from the collected online survey data. Then, the qualitative data analysis results are provided. Last, a combined results section describes connections between quantitative and qualitative data. Results from both phases of the study are compared for a complete analysis of the mixed methods research data.

Quantitative Data Analysis and Results

The first section of this chapter reveals findings from the quantitative phase of my research. I organized the inferential data analysis results by my three quantitative research questions. To conclude this section, the overall quantitative results are reviewed and summarized.

Research Question 1

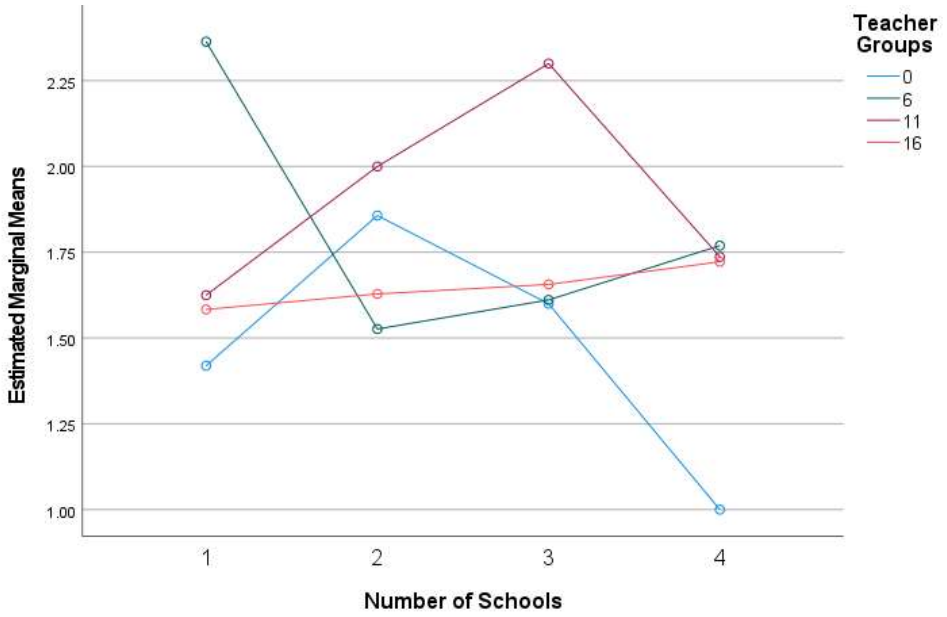
A one-way between subjects' ANOVA was conducted to compare teacher leadership identification (TLI) among the four teacher experience level groups. Overall, there was a statistically significant difference at the $p < .05$ level among the groups ($F(3, 302) = 2.869$, $p = .037$). Post hoc comparisons using Tukey's HSD revealed that the mean scores for teachers with 11 to 15 years of professional teaching experience ($M = 1.92$, $SD = 0.74$) were significantly higher than teachers with 0 to 5 years of experience ($M = 1.53$, $SD = 0.69$). No other significant differences were found between the groups.

After a significant difference was found in TLI based on years of experience, I conducted factorial ANOVAs to identify interactions between the variables, as recommended by Abbott (2011). A factorial ANOVA was conducted to compare the main effects of years of teaching experience and the number of schools taught at and their interaction effects on TLI. Years of teaching experience and interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience yielded an effect size of .034, indicating that 3.4% of the variance in TLI was explained by years of experience ($F(3, 290) = 2.935$, $p = 0.034$). The main effect of the number of schools was not significant ($F(3, 290) = .784$, $p = 0.504$), indicating that there was no effect for the number of schools on TLI. However, the interaction effect was significant

(F(9, 290) = 2.45, p = .011), indicating that there was a combined effect for years of experience and number of schools taught at on TLI (see Figure 4.1).

Figure 4.1

TLI Interaction Line Graph of Teacher Experience Level Groups and Number of Schools Taught At



In summary, quantitative data analysis results for RQ1 showed a significant difference between the teacher experience level groups. As a result, we reject the null hypothesis. According to my research, years of professional teaching experience does have a significant effect on how teachers identify as a teacher leader. There was also a significant interaction between years of teaching experience and the number of schools taught at.

Research Question 2

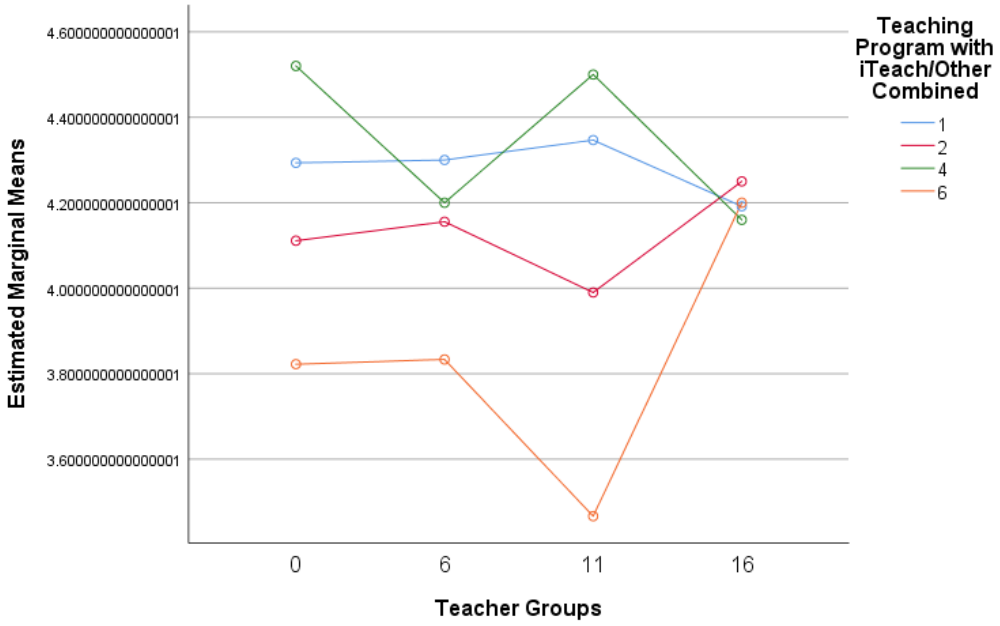
To begin data analysis with inferential statistics for RQ2, a one-way between subjects' ANOVA was conducted to compare teacher leadership readiness (TLR) factors

among the four teacher experience level groups. The four TLR factors derived from the results of an exploratory factor analysis on the survey and were labeled as TLR Factor 1 - *Self efficacy and value as a teacher*, TLR Factor 2 - *Willingness to take on school leadership responsibilities*, TLR Factor 3 - *Teacher autonomy beliefs*, and TLR Factor 4 - *Willingness to help other teachers*. Overall, there were no statistically significant differences in TLR based on years of experience.

Even though there were no significant differences found in TLR based on years of experience, I conducted factorial ANOVAs to identify any interactions that may exist between the variables. A factorial ANOVA was conducted to compare the main effects of years of teaching experience and teaching program and their interaction effects on the teacher autonomy beliefs factor of TLR. Teaching program was statistically significant at $p < 0.05$. The main effect of the years of experience was not significant ($F(3, 290) = .373$, $p = .773$), indicating that there was no effect for years of experience on TLR relating to teacher autonomy beliefs. The main effect of the teaching program yielded an effect size of .001, indicating that 0.1% of the variance in TLR relating to teacher autonomy beliefs was explained by teaching program ($F(3, 290) = 5.297$, $p = .001$). The interaction effect was not significant ($F(9, 290) = 1.279$, $p = .248$), indicating that there was no combined effect for years of experience and teaching program on the teacher autonomy beliefs factor of TLR (see Figure 4.4). In Figure 4.4, teachers from a college of education program are included in group 1, alternative certification program is 2, MAT program is 4, and 6 is iTeach and Other combined. Teachers who selected iTeach or Other teacher certification programs were combined because of a low number of participants in each group.

Figure 4.2

TLR Factor 3 Interaction Line Graph of Teacher Experience Level Groups and Teaching Program



In conclusion, quantitative data analysis results for RQ2 showed there is no significant difference between the teacher experience level groups. As a result, we fail to reject the null hypothesis. According to my research, years of professional teaching experience does not have a significant effect on teachers' readiness for teacher leadership roles. Additionally, when analyzing the effects of years of teaching and teaching program on the TLR factor of teacher autonomy beliefs, results showed that teaching program does have a significant effect on this factor. However, the difference that a teacher's teaching certification program has on their teacher autonomy beliefs does not depend on their years of professional teaching experience.

Research Question 3

To begin data analysis with inferential statistics for RQ3, a one-way between subjects' ANOVA was conducted to compare teacher leadership engagement (TLE) among the four teacher experience level groups. Seven categories of TLE were explored, based on the work of York-Barr and Duke (2004). The categories included: TLE Category 1 - *Coordinator/Management*, TLE Category 2 - *School/District Curriculum Work*, TLE Category 3 - *Professional Development of Colleagues*, TLE Category 4 - *Participation in School Change/Improvement*, TLE Category 5 - *Parent and Community Involvement*, TLE Category 6 - *Contributions to the Profession*, and TLE Category 7 - *Preservice Teacher Education*.

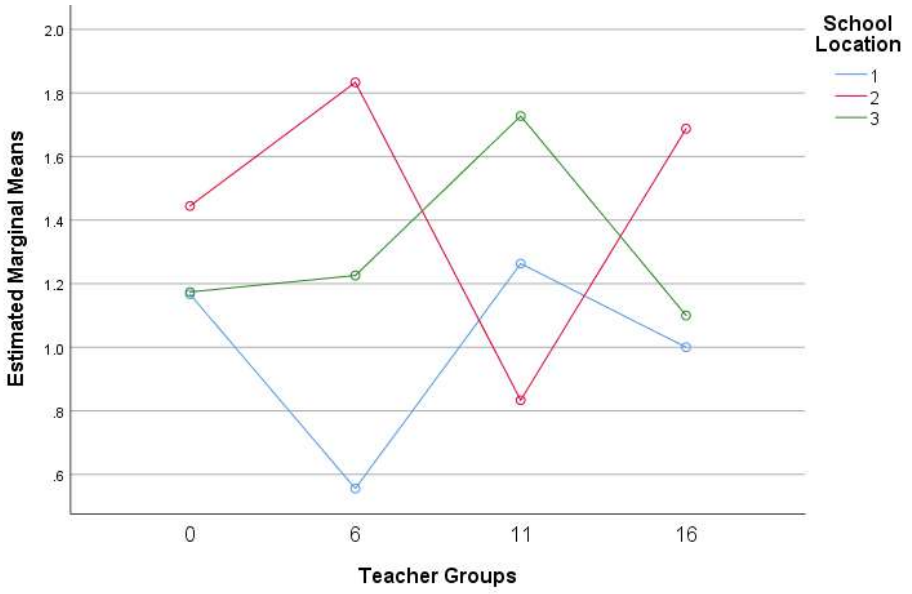
In the professional development of colleagues' category of TLE, Levene's test indicated unequal variances (0.18). Therefore, Welch's ANOVA was conducted to compare the TLE scores among the four teacher experience level groups. No significant differences between the groups were found ($F(3, 131) = 2.072$, $p = .11$). Additionally, Levene's test showed a difference between the groups' variances (0.17) in the parent and community involvement category, so Welch's ANOVA was conducted to compare TLE scores among the four teacher groups. Again, no significant differences were found between the groups ($F(3, 132) = 2.015$, $p = .11$). Finally, in the preservice teacher education category, Levene's test indicated unequal variances (.000), so Welch's ANOVA was conducted to compare TLE scores among the four teacher groups. Overall, there was a statistically significant difference at the $p < .05$ level among the groups ($F(3, 144) = 3.706$, $p = .01$). Post hoc comparisons using Games-Howell indicated that the mean scores for teachers with 16 or more years of experience ($M = 0.17$, $SD = 0.38$) were

significantly higher than teachers with 6 to 10 years (M = 0.05, SD = 0.21). No other significant differences were found between the groups.

After the significant difference was found in TLE based on years of experience, I conducted factorial ANOVAs to identify interactions between the variables. A factorial ANOVA was conducted to compare the main effects of years of teaching experience and school location and their interaction effects on TLE in the school change/improvement category. The interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience was not significant ($F(3, 294) = 0.033$, $p = .992$), indicating that there was no effect for years of teaching on this category of TLE. Likewise, the main effect of school location was not significant ($F(2, 294) = 2.427$, $p = .090$), indicating that there was no effect for location of school in this category of TLE. However, the interaction effect was significant ($F(6, 294) = 2.186$, $p = .044$), indicating that there was a combined effect for years of experience and school location on TLE in the school change/improvement category (see Figure 4.3). In Figure 4.3, school location is represented by numbers. These codes are as follows: 1 is Rural, 2 is Urban, and 3 is Suburban.

Figure 4.3

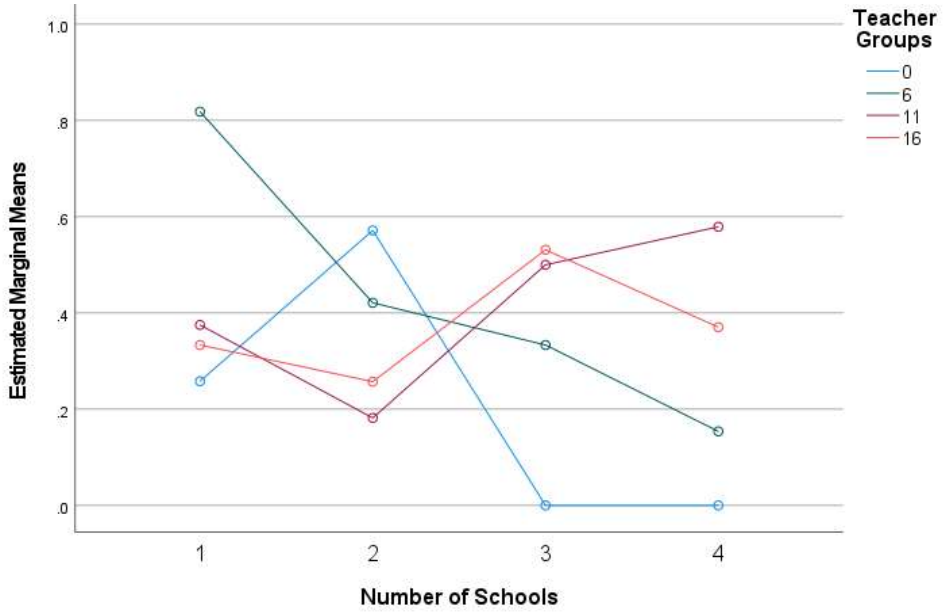
TLE Category 4 Interaction Line Graph of Teacher Experience Level Groups and School Location



The analysis of quantitative data continued with a factorial ANOVA to compare the main effects of years of teaching experience and number of schools taught at and their interaction effects on TLE in the school/district curriculum work category. The interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience was not significant ($F(3, 290) = 0.807$, $p = .491$), indicating that there was no effect for years of teaching on this category of TLE. Similarly, the main effect of number of schools taught at was not significant ($F(3, 290) = 0.518$, $p = .670$), indicating that there was no effect for number of schools taught at in this category of TLE. However, the interaction effect was significant ($F(9, 290) = 2.017$, $p = .037$), indicating that there was a combined effect for years of experience and number of schools on TLE in the school/district curriculum work category (see Figure 4.4).

Figure 4.4

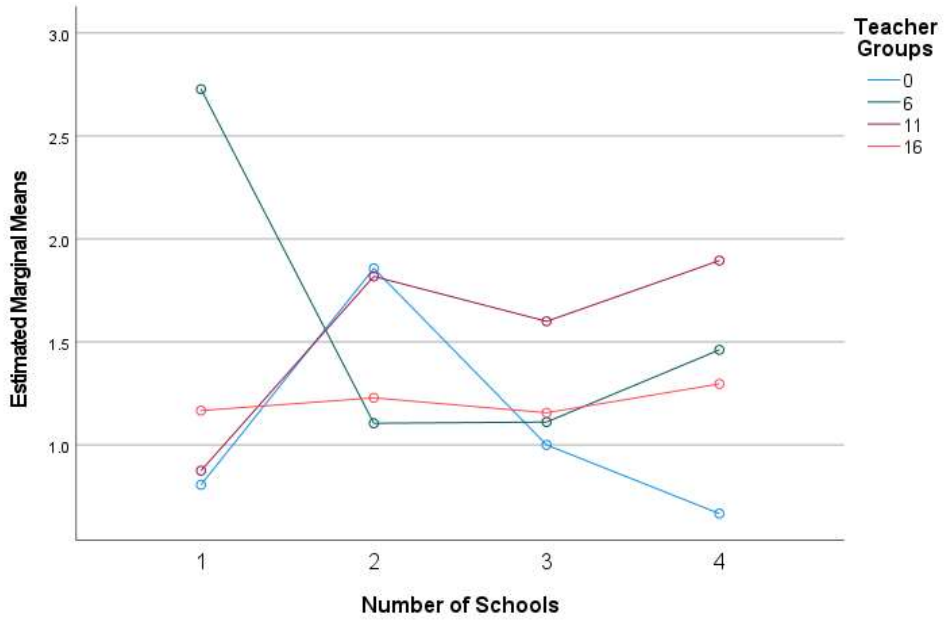
TLE Category 2 Interaction Line Graph of Teacher Experience Level Groups and Number of Schools Taught At



Next, another factorial ANOVA was conducted to compare the main effects of years of teaching experience and the number of schools taught at and their interaction effects on TLE, but this time in the professional development of colleagues' category. Here again, the interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience was not significant ($F(3, 290) = 1.737$, $p = .160$), indicating that there was no effect for years of teaching on this category of TLE. Additionally, the main effect of number of schools was not significant ($F(3, 290) = 0.449$, $p = .718$), indicating that there was no effect for number of schools taught at in this category of TLE. However, the interaction effect was significant ($F(9, 290) = 2.385$, $p = .013$), indicating that there was a combined effect for years of experience and number of schools on TLE in the professional development of colleagues' category (see Figure 4.5).

Figure 4.5

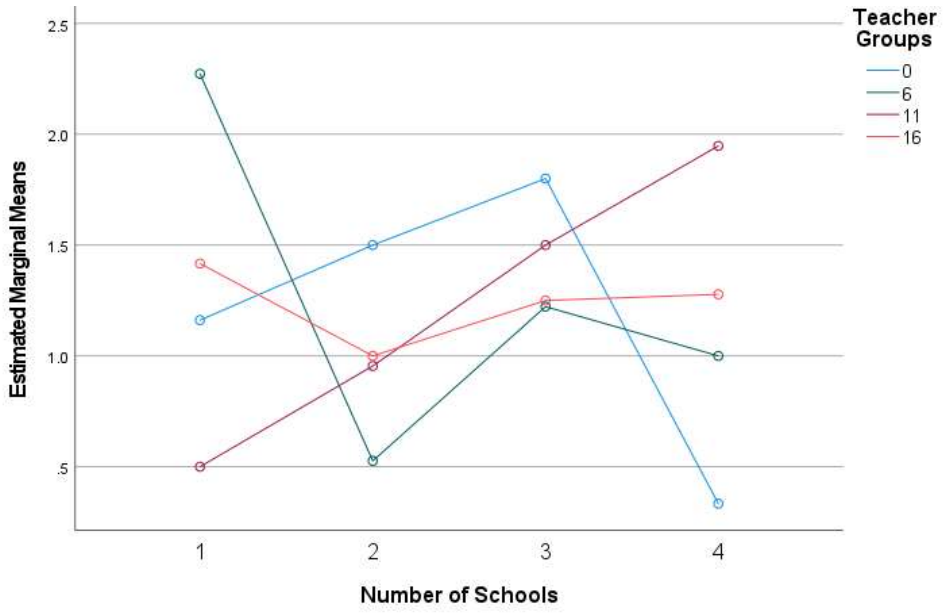
TLE Category 3 Interaction Line Graph of Teacher Experience Level Groups and Number of Schools Taught At



My quantitative data analysis continued with another factorial ANOVA to compare the main effects of years of teaching experience and number of schools taught at and their interaction effects on TLE in the participation in school change/improvement category. The interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience was not significant ($F(3, 290) = 0.013$, $p = .998$), indicating that there was no effect for years of teaching on this category of TLE. Likewise, the main effect of number of schools taught at was not significant ($F(3, 290) = 1.417$, $p = .238$), indicating that there was no effect for number of schools taught at in this category of TLE. However, the interaction effect was significant ($F(9, 290) = 2.506$, $p = .009$), indicating that there was a combined effect for years of experience and number of schools on TLE in the participation in school change/improvement category (see Figure 4.6).

Figure 4.6

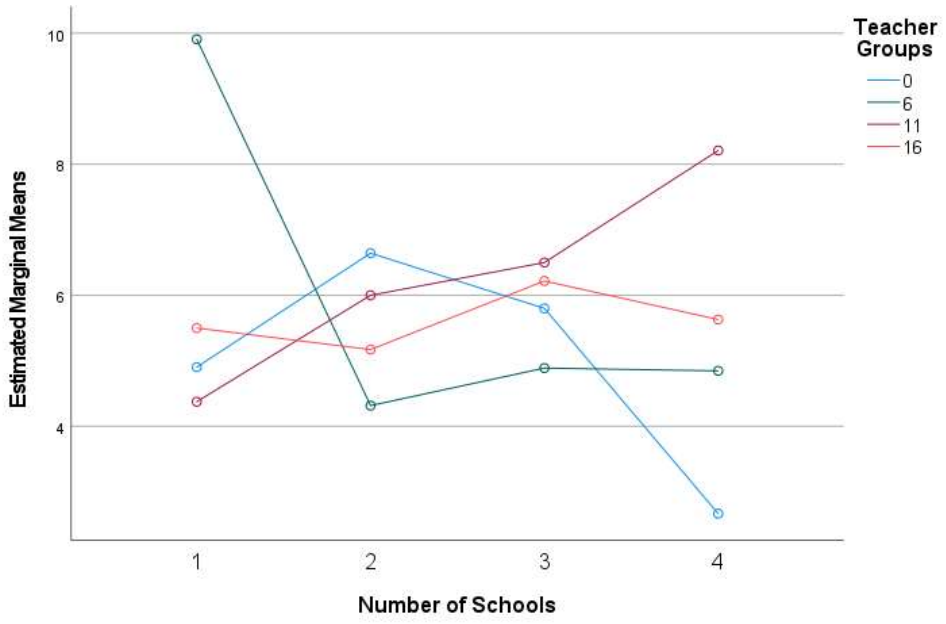
TLE Category 4 Interaction Line Graph of Teacher Experience Level Groups and Number of Schools Taught At



Finally, the last factorial ANOVA was conducted to compare the main effects of years of teaching experience and number of schools taught at and their interaction effects on total TLE, or a combination of all seven categories. The interaction effects were statistically significant at $p < 0.05$. The main effect of years of teaching experience was not significant ($F(3, 290) = 0.621$, $p = .602$), indicating that there was no effect for years of teaching on total TLE. Also, the main effect of number of schools taught at was not significant ($F(3, 290) = 0.356$, $p = .785$), indicating that there was no effect for number of schools taught at on total TLE. However, the interaction effect was significant ($F(9, 290) = 2.594$, $p = .007$), indicating that there was a combined effect for years of experience and number of schools on total TLE (see Figure 4.7).

Figure 4.7

TLE Total Interaction Line Graph of Teacher Experience Level Groups and Number of Schools Taught At



Overall, quantitative data analysis results for RQ3 showed there is a significant difference between the teacher experience level groups. As a result, we reject the null hypothesis. According to my research, years of professional teaching experience does have an effect on TLE. In addition to the significant finding from the ANOVA, several factorial ANOVA results showed significant differences or interactions between the groups. When analyzing the effects of years of teaching and highest degree held on the TLE category of preservice teacher education, results showed that the type of degree does significantly affect TLE. However, that effect was not dependent on years of experience.

Additionally, results showed a significant interaction when analyzing the effects of years of teaching and school location on the TLE category of participation in school change/improvement. I also found a significant interaction when analyzing the effects of years of teaching experience and number of schools that teachers have taught at on the

TLE category of school/district curriculum work. Next, when analyzing the effects of years of teaching experience and number of schools on the TLE category of the professional development of colleagues, results also showed a significant interaction. Then, when analyzing the effects of years of teaching experience and number of schools on the TLE category of the school change/improvement, results showed a significant interaction again. Finally, the last significant interaction was found between years of teaching experience and number of schools in the total TLE category.

Qualitative Data Analysis and Results

The next section of this chapter reveals results from the qualitative phase of my research. I collected and analyzed novice teacher interview data from a single-case study with embedded units. The data was analyzed to answer my qualitative research question: *How do public elementary school novice teachers perceive teacher leadership roles and teacher leadership engagement in their school or district?* I also included triangulation data from the four diverse school sites to support my findings. Triangulation data included administrator interview transcripts, experienced teacher interview transcripts, observation/reflection documents, and online data information. Four themes emerged from three coding cycles and were used to organize these results. These four themes are presented as Effective Teacher Leadership, Teacher Leadership Roles, Opportunities and Development, and Acceptance and Support. The overall results are reviewed and summarized throughout this section following each theme.

Effective Teacher Leadership

The first central theme that emerged from my qualitative data analysis is Effective Teacher Leadership. Within this theme are six codes that reveal the patterns and significant results from my interviews with four novice teachers. The six codes for Effective Teacher Leadership include Leadership Personality, Personal Drive, Communication, Professionalism and Ethics, Pedagogical Knowledge, and Teaching Experience. These codes encompass the participants' perceptions of what it takes to be an effective teacher leader.

Leadership Personality

Many participants discussed leadership personality as an essential component of effective teacher leadership. They discussed teacher leaders as goal-oriented team players and individuals with the right attitude for leadership. For example, NTA, NTB, and NTD described teacher leaders as those who focus on the group or school rather than themselves. NTA explained that teacher leaders promote an ideal Professional Learning Community (PLC). She emphasized that her idea of teacher leadership focuses on collaboration, stating, "Teacher leadership to me is when all teachers are on the same page and leading each other, and not necessarily just having one set leader." NTA also described teacher leaders as "teachers who just know how to direct you in the way you need to go depending on the goal for the school, students, or grade level team." NTB had similar responses on an ideal teacher leader, declaring teacher leadership is "about helping your teammates, but it also helps you out because it eventually makes your job easier as well." Likewise, NTD expressed the importance of teacher leaders who embrace ideals of togetherness and community within their teams.

The novice teacher participants also spoke of teacher leaders being positive and having the right attitude for leadership. NTA described her role model for teacher leadership as "calm, but effective." NTB expressed that effective teacher leaders gain the respect of their peers because they never ask people to do things that they do not do themselves. Both NTB and NTC mentioned the importance of teacher leaders maintaining positive attitudes and being able to make you feel better if you are having a bad day.

Interestingly, the novice teachers were not the only participants who considered leadership personality an essential factor for teacher leaders. The administrator participants included several comments in their responses that stressed the critical role that personality plays in effective teacher leadership. Admin A described how she focuses on the personality of a teacher when assigning teacher leadership roles. As a new principal to her school, she spoke of how she spent a lot of time with the previous principal before taking over, discussing each teacher's personality and who she considered reliable and capable of leadership roles. Admin C addressed the importance of noticing leadership qualities in teachers and seeing who has inherent leadership skills that can be developed. She stressed the need to identify leadership qualities in emerging teacher leaders but also stated there is no set leadership personality. Admin C discussed how teacher leaders could work on the skills that need improvement, just like school leaders.

Although most of the administrator participants seemed to be proponents of teacher leadership, Admin B seemed mildly tolerant of the idea of teachers being considered leaders. His tone differed from the rest of my interviewees, giving terse

responses and making me almost pry information out of him. Nonetheless, like the other principals, he spoke on the importance of leadership personality, stating, “You’re basically looking for someone who gets the job done in and out of the classroom. They’re reliable. They’re, you know, they’re accountable to themselves and to others.”

The experienced teachers also agreed that leadership personality was a critical component of teacher leadership. ETB’s response echoed Admin B’s, stating that she sees teacher leaders as reliable and encouraging and can inspire others to continue to grow and improve. She also felt that flexibility was necessary for teacher leadership, which the other participants had not previously mentioned. Lastly, just as the novice teachers said, ETD also associated teacher leadership with teachers who are helpful and have a positive attitude.

Personal Drive

The second code for effective teacher leadership is Personal Drive. There was a pattern in how emotional each novice teacher was when talking about this component and their teacher leader role models. They focused on how being a teacher leader means going above and beyond the usual roles of a teacher and how teacher leaders are always dependable.

To begin, NTB explained that being a teacher leader means “that you’re willing to take on opportunities that will benefit other people.” She claimed her participation in this study as a perfect example of this type of drive and initiative, stating, “this interview opportunity is great because I think research needs to be done about teacher leadership.” During her interview, it became apparent that NTB was an ambitious and self-motivated novice teacher leader. She said teacher leadership means stepping out of your comfort

zone at times to serve as a role model for your peers. She also described the importance of giving up your time for these leadership responsibilities.

Likewise, the idea of giving up personal time as a teacher leader was echoed by NTC, who expressed her ideal teacher leaders are "role models of leadership because they are always there for their students. No matter what goes on in life, they're always there." Similarly, NTD spoke of her teacher leader role model, describing her as a peer teacher who was always there for her. NTD became visibly upset and wiped away tears as she discussed the type of person her role model was and the example she set for her as a first-year teacher. She stated,

> My very first partner teacher, she had been teaching for like thirty-something years, but she was so willing to let me try things and then be there when I failed. She was a huge support for me. She also sought out new leadership positions and opportunities for herself. She wanted more out of her career. She was actively seeking leadership roles.

As a new teacher at School Site 4 this year, it was clear that NTD missed her connection with her old partner teacher. As a novice teacher at her third school, she was set on her goals for teacher leadership. It was clear her original partner teacher, a teacher leader herself, had a lot to do with that.

As for the experienced teachers, they too valued personal drive as a teacher leadership component. ETB discussed teacher leadership as teachers who are helpful, experienced, and able to offer advice to their peers. Her views align with NTB in that she insists teacher leaders must be willing to take on extra roles and responsibilities.

Moreover, ETD described teacher leadership as teachers going above and beyond and taking on additional responsibilities without being asked. She stated,

> I would say that informal teacher leadership is more of leading by example and taking the reins on things if needed. For example, if something needs to be done by a grade level and the administration just sends out an email to everybody, an informal teacher leader will just go on ahead and just get it started. So just kind of being that person that takes on, you know, extra responsibilities, not necessarily being given a title—just doing it because it needs to be done.

ETD's perception aligned with Admin D's ideals of informal teacher leadership but not with NTD's. However, this is discussed further in the next section on teacher leadership roles.

Communication

The third code of Effective Teacher Leadership is Communication. Several participants of this research study strongly associated teacher leaders as effective communicators who provide information well and receive it well by serving as good listeners. For example, NTC discussed the importance of communication when she described teacher leaders as people who are "there for you and to listen to you vent." She added, "You know, they just offer a shoulder to listen. I can go and talk to them, and they just listen." NTC referred to her peer teacher, whom she perceives as the leader of their two-person fifth grade team, as a person she can come to for advice. She valued their open communication and said it plays a crucial role in their effectiveness as a team. NTC stated, "We talk in the hallway a lot about what's going on and how the kids are behaving

or doing that day." She also stressed that teacher leaders communicate well by always providing feedback.

Supporting NTC's comments, Admin C also spoke to the importance of communication in teacher leadership. Admin C discussed how she uses team leaders to get feedback about what is going on in the school. She added that communication is essential for teacher leaders, that they must possess a positive personality, and be able to deal with negative people. Lastly, Admin C explained that her "teacher leaders are more or less an assistant to (her) because they can sometimes get in the classrooms quicker and easier." In other words, she depends on her teacher leaders to relay information to their team members or the other teachers in their hallway and to give her valuable feedback and insight on how things are going when she is unavailable.

Admin B had viewpoints parallel to Admin C, elaborating on teacher leaders needing to be effective communicators. Although NTB did not make specific remarks about the importance of communication skills, Admin B considered it a crucial characteristic of teacher leadership. He stated several times during the interview that teacher leaders must be good communicators and "deliver a message" correctly to the other team members. Also, at School Site 3, ETB mentioned the importance of communication for teacher leadership. She discussed her role as an informal teacher leader and said her co-workers come to her with problems. They look to her for thoughtful advice, even about things that are not school-related.

In alignment with the other participants, NTD expressed that "teacher leadership has a lot to do with communication." NTD spoke several times about collaboration and communication among her peer teachers at School Site 4. Like NTC, she valued hallway

conversations as opportunities for novice teachers to engage in informal teacher leadership. She also elaborated on the power of sharing ideas with peer teachers. Likewise, Admin D mentioned how good her teachers were at "vertical meetings" in the hallways and sharing ideas. ETD also said teacher leadership is about collaboration. However, during her interview, she focused more on teacher leaders as problem-solvers.

Professionalism and Ethics

The fourth code within the Effective Teacher Leadership theme is Professionalism and Ethics. Participants discussed the significance of teacher leaders as professional role models, those who demonstrate ethical leadership, and those who show potential to serve in administrator or district-appointed roles.

To start, NTB had much to say about teacher leaders as professional role models. She admitted that her principal and assistant principal have impacted what she now sees as effective leadership. She stated, "You'll never hear them say something negative about another person. They speak positively about the teachers and the students." NTB declared that teacher leaders, like school leaders, should be "professional and set a good example." Interestingly, Admin B's perspective closely aligns with his novice teacher's. He described a teacher leader as "someone who is able to be a model for other teachers, someone who is able to set a standard for the teachers to try to reach in regards to their professional conduct, both on and off-campus." At School Site 2, the participants perceive teacher leaders as those who exemplify professionalism and demonstrate respect to faculty, staff, and students.

Another interviewee who stressed the importance of professionalism was Admin D. Admin D was highly knowledgeable about teacher leadership and discussed how she

depends on it to maintain her school's success. When asked what teacher leadership means to her, she responded, "Ok, well, you know, the job of a school administrator is vast. And so you have to have teacher leadership in order to get the most out of your staff." Admin D insisted teacher leaders are necessary to help the school principal perform their job effectively. Teacher leaders must be capable of taking on professional roles assigned by school or district leaders. Her perspective aligned with Admin C's ideals when she discussed how teacher leaders are like "assistants" to the principal. These school leaders see teacher leaders as a part of their school leadership team because they exhibit professionalism and inherent leadership qualities. Admins C and D consider it crucial to build capacity in their teachers and help them grow in whatever areas they need to improve.

Another response on professionalism and teacher leadership was from ETC at School Site 3. This experienced teacher participant mentioned strong feelings about how a novice teacher's teacher certification program and previous work experience affect their ability to engage in teacher leadership roles. ETC believes that beginning teachers who are older and coming from the workforce with an alternative certification or iTeach certification could be more capable of novice teacher leadership than younger novice teachers with a college of education teaching certification. She stated, "It also has to do with like, were you in a different position before? Like you're not fresh out of college." She further explained,

> I think when you're fresh out of school, like sometimes you go in and you don't you don't know. I mean, I didn't and I did alternate certification and it was like slapping me in the face. So, before teaching I just had little jobs here and there.

> There are a lot of teachers here that did Alt Cert and I think it makes it better because we're just not focused on it, just being in education. There's other things we can pull in from our previous (work) experiences.

In other words, ETC believes that novice teachers who have previous work experience can serve as effective teacher leaders sooner because of their prior professional experiences. Surprisingly, NTC supported ETC's perspective on beginning teachers being more capable of leadership when coming from the workforce instead of college. NTC explained, "We've had most of our teachers go through an alternative certification program. A lot of them here are Alt Cert teachers and we even have a couple of non-certified teachers here." She elaborated on how having previous experience in the workforce allows them to apply prior knowledge to their classroom instruction and share it with their team.

Pedagogical Knowledge

The fifth code of Effective Teacher Leadership is Pedagogical Knowledge. Several participants in this study explained that teacher leadership is about mentorship and being a highly effective teacher who can share knowledge and skills with peers. Novice teachers and their administrators emphasized teachers' ability to train or mentor peer teachers as a critical component of effective teacher leadership.

To begin, NTA shared that "teacher leaders are those who are a more knowledgeable teacher to their peers, but not necessarily the boss of them." She described teacher leaders as role models that keep the team in line and work toward the same ultimate goals. NTA's definition is more focused on individual mentorship and team leadership. However, her principal defined teacher leadership as teachers who work

as “teacher trainers” to redeliver information from curriculum training, introduce new instructional strategies, and relay information about changes coming down from the state or district. Although NTA and Admin A perceive teacher leaders as knowledgeable experts, NTA’s perspective focused more on school leadership roles, while Admin A focused on district-appointed roles.

Another participant who suggested teacher leaders as pedagogical experts was NTB. She sees teacher leaders as leaders of their classrooms in managing their students and curriculum. She explained, “It’s also the way you instruct your students by using up-to-date teaching strategies based on your student population.” NTB teaches at a failing, urban elementary school, according to online data. She made several comments about how student demographics and the economic status of their school families significantly impact how teacher leaders are developed and engaged at School Site 2. Her principal, Admin B, echoed her perception of teacher leaders as classroom experts by explaining informal teacher leadership as teachers “doing the right thing” in the classroom. For NTB and Admin B, being an effective classroom teacher is a critical factor in effective teacher leadership because they operate in an educational environment that poses many challenges for early educators.

At School Site 3, NTC shared NTA’s perspective on teacher leaders as mentors by stating, “What teacher leadership means to me is having someone that I can go to and depend on, like a mentor.” Likewise, Admin C sees teacher leaders as mentors to new teachers who also help with the curriculum. NTC also commented several times that she considers novice teachers’ lack of experience and pedagogical knowledge to hinder their leadership abilities. As a participant of the iTeach program, NTC did not have

opportunities to student teach or observe other teachers while attending college. She elaborated on the different teaching styles of her and her more experienced peer teacher. She stated,

> Now, out of me and my co-teacher, she's the leader of our grade level. She's the one who if you walk into her classroom, it's quiet. The kids are working. You know, they're disciplined. You come into my classroom and it's organized chaos. And I mean, that's how we balance each other. My kids are talking. We're working together. We're loud. We talk about that all the time.

ETC's interview data supported these claims. ETC described how she always gives advice and help to NTC because she had been "doing it longer."

In the same regard, NTA spoke of her team leader's high level of effectiveness and how much their teaching styles differed. She longed to mimic her team leader's classroom organization skills and ability to promote and maintain student engagement. NTA described her experienced peer as "so calm, but effective, and just the environment of her classroom is amazing." She added, "The way she teaches and is involved with her children and, you know, excites them about learning." NTA admitted that she is still growing and learning as a novice teacher and seemed to struggle with comparing her effectiveness in the classroom with that of her more experienced colleagues.

Teaching Experience

The sixth and final code in the theme of Effective Teacher Leadership is Teaching Experience. During their interviews, NTs A, C, and D expressed the value of having teacher leaders who have prior knowledge from their experience as teachers. Additionally, they commented on how novice teachers could also contribute from their

previous experiences as teacher candidates or student teachers. Finally, the participants discussed how having experience at different schools could contribute to effective teacher leadership.

To begin, NTA could not hide her enthusiasm as she shared details about her teacher leadership role models. She spoke highly of one experienced teacher who helped her during the past three years at School Site 1. NTA told me that she was sad to leave her peer after this year since she took a new job in another district. She said, “I’m moving to a great school. They have really strong PLCs and really strong teacher leaders. But I’m like, ‘I don’t know what to do without you!’ I have to find my new person. I’ve worked closely with her.” It was clear that NTA’s experienced peer teacher and mentor had taught her a lot, and she was struggling with the idea of moving on without her the next school year.

Next, NTC also had many things to say about how vital her experienced peer teachers are and how much she asks them for advice. She explained,

> So, I rely a lot on my co-teacher. And when I started out, I had a mentor because I started out teaching third grade. She was a fourth grade teacher, but she was a teacher leader. She really helped me a lot. But it’s just (having) somebody that I can go to ask questions if I need help or if I don’t understand something. If I have a bad day with the kids, I can go to them and it’s like, “OK, I’ve experienced this.” And they’ll tell me this is how you should handle it or this is what you could do next time you’re in that same situation.

As I expected, ETC's idea of teacher leaders as experienced teachers aligned with NTC's. She said that teacher leaders are helpful to their peers and goal-oriented. ETC also described teacher leaders as knowledgeable mentors for less experienced peer teachers.

Regarding gaining teacher leadership knowledge from previous teaching experiences, Admin C shared an interesting perspective. She claimed that all teachers should change positions every five to six years. She said, "I think everybody should never teach the same thing for longer than six years, especially if you're going to be an administrator. The more you do, the better." Admin C further explained that having teachers change their grade level, content area, school, or even district could be beneficial for gaining experience and knowledge. Her insight and advice stemmed from her many years of experience in public schools. Admin C taught grades pre-k through twelfth grade before taking a position as an administrator. She also came from a family of educators, having a father who served as the district superintendent for over 50 years. She appropriately stated, "So, you know, it's in my blood."

NTD also contributed to the assortment of comments on the benefits of teaching experience for effective teacher leadership. However, her opinion on the topic differed from those previously mentioned. To NTD, teaching experience mattered. Yet, she couldn't hide her intense feelings about the power of novice teacher knowledge. She shared,

> I think it has a lot to do with experience. But I also think that the more experienced teachers can learn from the younger teachers as well. Me being kind of a "younger teacher" here, I feel like since I'm fresh out of college-ish, there are

> ideas that I can bring since I'm still young and lively. Everything is just all new and exciting.

NTD stated that she could contribute to her team as a novice teacher leader and positively impact more veteran teachers. Surprisingly, the experienced teacher participant spoke nearly those exact words at School Site 4. ETD declared,

> I don't ever look at a teacher who is coming with an idea and think like, oh, "Just wait. You're just starting, you know, you're just a little baby teacher." That's not the first thing that I think about. I mean, the first thing I think about is like, well, they just got out of school, and they've just been through student teaching and they have just observed all these different teachers. These are things that we other teachers haven't, I haven't, done in twelve years, you know? A lot of times new teachers bring new ideas, even if it's just a new teacher from a different school.

Another participant who shared this perspective was the experienced teacher at School Site 2. ETB explained that novice teacher leadership is possible, and she exemplifies it. It simply depends on the individual teacher. She said that novice teacher leaders are still learning as teachers but are willing to help others simultaneously. Furthermore, ETB claimed that teachers with little to no experience could benefit others. She said, "When you're someone that is a recent graduate, there's a lot of new things that you learn at (college) that could be helpful to your district or your school."

Summary of Effective Teacher Leadership

To summarize, the first central theme that emerged from my qualitative data analysis is Effective Teacher Leadership. Within this theme, the key components for effective teacher leadership are personality, drive, communication, professionalism,

pedagogical knowledge, and teaching experience. Novice teachers must be helpful, reliable, and portray a positive attitude to be effective teacher leaders. They must also focus on their team's success rather than individual goals and continually seek professional growth by taking on additional roles and responsibilities.

Additionally, teacher leaders are self-motivated, and display effective communication skills. These teachers also serve as role models by maintaining professionalism and ethical leadership both inside and outside the classroom. Next, novice teacher leaders must exhibit mentorship capabilities and increased pedagogical knowledge. Teacher leaders are educators who use effective teaching strategies, have mastery of their content and curriculum, and demonstrate effective classroom management. Finally, novice teachers must have some prior classroom experience to succeed in a teacher leadership role, whether that experience is as a teacher candidate, as a teacher at their current school, or as a teacher from multiple schools or grade levels.

Teacher Leadership Roles

The second central theme that emerged from my qualitative data analysis is Teacher Leadership Roles. Within this theme are two codes that reveal the patterns and significant results from all interviews. The two codes of Teacher Leadership Roles include Informal Teacher Leadership and Formal Teacher Leadership. These results indicate how novice teachers perceive the two types of teacher leadership and their activities.

Informal Teacher Leadership

The code within the Teacher Leadership Roles theme is Informal Teacher Leadership. Novice teachers frequently discussed serving as role models or mentors as

key components of this type of leadership. There were also several discussions on peer communication, sharing, and collaboration in informal teacher leadership roles. However, there was a misalignment at most of the schools in what teachers and administrators considered informal teacher leadership. Finally, a pattern emerged showing many teachers unaware of their engagement in informal teacher leadership roles.

To start, NTs B and D had a firm grasp of informal teacher leadership roles and provided examples of this type of leadership from their own experiences. NTB began by claiming, “I think that with informal teacher leadership roles, there’s a lot more to it than people would imagine. I think that even in your daily interactions with your students and other teachers, you’re engaging in some form of teacher leadership.” She declared that informal teacher leadership roles have a more significant impact on teacher and student outcomes than formal roles. NTB also feels that all teachers work in some form of informal leadership capacity by working each day to be good role models for students and peer teachers. She described that teacher leaders are those who take on additional roles to help others, whether that be other teachers, students, parents, or even school leaders.

Although NTB had much to say about informal teacher leadership, her principal, Admin B, was the opposite. He could not recall any informal teacher leadership roles at School Site 2 besides teachers working in the classroom. At the same time, ETB sees informal teacher leadership roles as helpful peer teachers who are more like friends. Although she did not refer to herself as an informal teacher leader, she described several ways her peer teachers come to her for help. Her peer teacher, NTB, predicted this type of unawareness of informal teacher leadership when she stated, “I think a lot of people

engage in a lot more leadership than they even realize. They aren't thinking, 'Oh, ok, I'm going to be a leader by doing this.' These are teachers that don't necessarily have a leadership title."

Next, the participants from School Site 4 aligned in their perceptions of informal teacher leadership. NTD feels that informal teacher leadership is a more personalized style of leadership that any teacher can participate in. She explained, "I truly think that any teacher can be a teacher leader if they set their mind to it and if they work at it because we can all learn from each other." This comment aligned with NTB, who felt that all teachers could learn from one another through informal teacher leadership. NTD and NTB feel that team planning, hallway conversations, discussing ideas with peer teachers, and sharing were excellent examples of informal teacher leadership engagement. Admin D's perspective of informal teacher leadership aligned with her novice teacher in that they both see these roles as teachers who go above and beyond to solve problems. She described informal teacher leaders as those who take the initiative to get things done and make needed improvements for their grade level or school team.

Oppositely, NTA and NTC did not clearly understand informal teacher leadership roles and displayed confusion during their interviews. NTA related informal teacher leadership to team leaders, most likely because no formal titles were given to team leaders at School Site 1. However, later in the interview, she vacillated between identifying as a non-teacher leader and an informal teacher leader who shared instructional ideas and lesson plans with her team. Admin A's response paralleled her novice teacher's initial perspective when she revealed that she considers informal teacher leaders as natural mentors who emerge from within grade-level teams. Admin A

considers these team leaders to be messengers to relay information between the principal and the teachers. All other school principals in the study thought of team leaders as more formal teacher leadership.

Finally, NTC was the least familiar with the term informal teacher leadership. NTC associated informal teacher leadership roles with informal observations from her school administrators. In her eyes, the school leaders engaged in informal teacher leadership when they came into classrooms to observe teachers and students. At the same time, her principal, Admin C, described informal teacher leadership as taking charge of school programs, organizing events, or being in charge of school clubs. Adding to the misalignment of teacher leadership perceptions, ETC described informal teacher leadership as being the hall leader and answering questions for peer teachers. Overall, at School Site 3, there was a complete misalignment of perceptions of informal teacher leadership. NTC seemed to be hearing about them for the first time. Her peer, ETC, perceives informal teacher leadership as grade-level team leaders, and their principal, Admin C, associates team leaders with leading school sports, clubs, and programs.

Novice teachers' perceptions of informal teacher leadership vary depending on their experiences with teacher leadership at different schools. Additionally, the misalignment of data revealed that novice teachers' perceptions of informal teacher leadership do not commonly align with those of their administrators. In this study, participants at only one school described a common understanding of informal teacher leadership as teachers who exceed expectations or teaching requirements, share ideas with their peers, and work to solve problems without being asked. The two novice teachers who had teaching experience at only one school had misconceptions of informal

teacher leadership and were unaware of their own participation in informal teacher leadership roles. Contrastingly, the novice teachers with experience at two to three schools had a greater understanding of informal teacher leadership roles.

Formal Teacher Leadership

The second leadership role discussed by the case study participants is Formal Teacher Leadership. Novice teachers frequently discussed administrator-appointed roles and teacher leader certifications within this type of leadership. A pattern emerged in responses that showed many participants were unclear about the processes for becoming a state-certified teacher leader, and several interviewees saw formal teacher leadership roles as less abundant than informal ones.

Every novice teacher participant in the study associated formal teacher leadership with titles given by school principals or district leaders. NTD referred to these as things that teachers can put on their resumes. Some formal teacher leadership positions mentioned included grade-level or content team leaders and instructional or academic coaches. NTC also said their graduation coach is a formal teacher leadership role since School Site 3 was a pre-k through 12th grade school. Admins B and D had similar perceptions of team leaders belonging to the formal teacher leadership category.

However, Admin D was the only school principal who considered her team leaders part of the school leadership team. Both the novice teacher and the experienced teacher participants at School Site 4 agreed with Admin D, describing formal teacher leadership as leading PLCs and working with a grade-level team. ETD further described her role as a formal teacher leader and explained that she serves on their school leadership team, attends meetings, and takes information back to the rest of the teachers.

Unlike Admin D, Admin C seemed reluctant to use the term “team leader” for a formal teacher leadership role. She stated,

> I think the formal would be, you know, they know when we have a meeting, they’re in charge of making sure everybody in their group or their hall knows that we have the meeting or that if they weren’t there, they’ll make sure they get the notes from it and things like that. It’s more of actually being assigned as a teacher, you know, as the leader.

Interestingly, Admin C said ETC was a formal teacher leader, but ETC tied formal teacher leadership to instructional coach positions.

Another position of formal teacher leadership mentioned by the participants was certified teacher leaders, including mentors and content leaders. NTs A, B, and C suggested these certifications as opportunities for formal teacher leadership. Unfortunately, some teacher participants, including both novice and experienced, were unclear about the processes for becoming a state-certified teacher leader. For example, NTA stated, “I know there is a whole program to become one of these teachers; it’s just not widely known about here, at least not from my perspective.” NTA’s statement was interesting because her principal had much to say about certified teacher leaders. Admin A described formal teacher leadership as content leaders who work at the district level. She explained that these teachers are chosen by district leaders and school principals based on their knowledge levels. Admin A also provided that more of these teacher leaders would be in her school for the next school year because the district recently allowed her to hire for these positions.

Another example of unfamiliarity with teacher leader certifications came from ETD. She was interested in earning a teacher leadership certification but was unsure where to learn more about it. She said some teachers had worked on that certification at her school, but she was unsure how many. During the interview, ETD asked me what the difference was between a mentor teacher certification and a content leader certification and what the requirements were for mentoring a teacher candidate from a university. Surprisingly, NTD did not mention formal teacher leader certifications in her discussion on teacher leadership roles. She focused much more on informal teacher leadership as the most frequent form of leadership for classroom educators.

Like NTD, NTB also perceived informal teacher leadership roles as more valuable and frequent than formal ones. She stated, “I think in some ways these roles can be so rigid that you don’t learn as much as you would from your experiences with informal teacher leaders.” Novice teachers in this study often described the meaningful learning opportunities from informal teacher leadership rather than formal. It seemed that most novice teachers preferred to learn from informal teacher leaders. Furthermore, the participants expressed that they encountered formal teacher leaders less often, especially due to COVID-19. For example, NTD claimed, “Training from content leaders would be an example of formal teacher leadership, but we don’t get to experience those as much, especially this year with the pandemic.”

Novice teacher participants know formal teacher leadership roles and associate them with titles such as team leaders, instructional coaches, mentor teachers, or content leaders. Although team leaders were considered primarily formal teacher leaders, most school leaders did not consider grade-level team leaders a part of their school leadership

teams. Also, despite a common understanding of mentor and content leader certifications as opportunities for formal teacher leadership, some novice and experienced teachers were unclear of how to attain such certifications. Finally, many novice teachers and school leaders agreed that there are fewer opportunities for formal teacher leadership, especially during a global pandemic. Novice teachers considered formal teacher leadership as less frequent and less impactful on peer teacher and student success and growth.

Summary of Teacher Leadership Roles

The two major types of teacher leadership discussed were informal and formal. Novice teachers' perceptions of informal teacher leadership varied depending on their experiences with teacher leadership at different schools. The novice teachers' perceptions of informal teacher leadership often differed from their administrators'. Also, novice teachers with experience at more than one school better understand informal teacher leadership roles. As for formal teacher leadership, most novice teachers were knowledgeable about formal teacher leadership roles and frequently associated them with titled positions such as team leaders, instructional coaches, mentor teachers, or content leaders. However, some teachers were unaware of how to get formal teacher leader certifications. Finally, many novice teachers perceived formal teacher leadership as less frequent and less impactful on student, teacher, and school success. They expressed concern over a decreased opportunity for formal teacher leadership due to the global pandemic.

Opportunities and Development

The third central theme that emerged from my qualitative data analysis is Opportunities and Development. Within this theme are four codes: Teacher Leadership Development, Teacher Leadership Engagement, Teacher Leadership Aspirations, and Changing Schools and Districts. These categories reveal how novice teachers are provided with formal and informal teacher leadership opportunities by their schools and districts. Additionally, the participants discussed developing as teacher leaders within their particular schools and districts. These accounts provide descriptive details of how varying levels of distributed leadership affect novice teacher leadership development and engagement.

Teacher Leadership Development

Novice teacher participants in this study provided detailed accounts of how they have developed thus far as teacher leaders and what specific factors have contributed to that development. The participants also provided insight on how they identify as teacher leaders and how to become a novice teacher leader.

At School Site 1, NTA described her development thus far as a novice teacher leader as minimal; however, she identified herself as an informal teacher leader due to recent work developing curriculum materials for her team. She had a lack of formal mentorship as a beginning teacher, stating, “I think I had a mentor teacher when I began teaching, but I did not know she was my mentor until the end of the year.” Due to a lack of formal mentorship, NTA depended on her experienced peer teacher for guidance and accredited her development thus far to her. It became apparent through the interviews at School Site 1 that there was poor communication between NTA and Admin A. This

could be why she did not know she had a mentor as a beginning teacher. Also, Admin A admitted that she does not like giving teachers formal leadership titles for fear of it "going to their heads." The online data aligned with these findings, showing all school posts made by the principal alone. Also, there was no indication of opportunities for formal teacher leadership due to a lack of special events, clubs, or sports-themed content. These collective findings from various data sources suggest Admin A practices a low level of distributed leadership.

At School Site 2, NTB had a much different experience. NTB was more advanced in her development as a novice teacher leader, having already worked at two other schools, one in a northern US state and her current school in the south. She also had teaching experience in two different grade levels and identified herself as a formal teacher leader. NTB considers herself the grade-level team leader and handles many issues for other teachers on her team, such as student behavior problems. She accredited her ability to work in a leadership role early in her career to her constant need for more information. NTB said, "My principal considers me as the team leader and always jokes with me that I always have a ton of questions."

To elaborate further on her efforts, NTB discussed how hard all of the teacher teams worked to improve overall academic performance. She discussed several instances where she speaks and works with her principal, assistant principal, and instructional coach to improve school outcomes. She elaborated by stating, "I get to participate in those meetings, which is exciting. There are many school leaders and district leaders present in those meetings as well." However, her principal, Admin B, had a much different perspective on team leaders' roles at School Site 2. He did not consider team

leaders as part of the school leadership team, claiming the true school leadership team is only the principal and assistant principal. The lack of formal and informal teacher leadership roles at School Site 2 reflected a low level of distributed leadership. However, although Admin B was not a proponent of teacher leadership, he and ETB confirmed that NTB was the fifth grade team leader and that she works closely with the instructional coach to help guide their teachers in the right direction.

At School Site 3, there seemed to be a very laid-back approach to teacher leadership in general. At her small, rural school, NTC did not identify herself as a teacher leader of any type. She spoke about mentor teachers, but only as formal teacher leaders at their school who had gotten or were working on their state certification. They did not impact her directly or her development as a novice teacher leader. However, despite being a novice teacher, she did think she had a lot to offer her team from her previous work experiences. She stated,

> Now as far as having outside knowledge of stuff that I can bring in, yes, because I've worked. You know, before I started this, I worked twenty years before I came into education, so I feel like I can have that to offer to not only my co-workers but, you know, to the children too.

She seemed unaware that leading school clubs and organizations are considered teacher leadership roles by other educators and school leaders, even though her principal, Admin C, referred to them as informal teacher leadership. Interestingly, Admin C shared that school leadership style affects novice teacher leadership development. She also provided examples of how she practices more of a "shared leadership" style, such as allowing her grade level teams to create their schedules and have a say in school or grade level

decisions. Admin C mentioned how important it is to enable teachers to have input to increase buy-in. She explained,

> I've always felt like if people have a part in things, such as making schedules, if they have a stake in it, then, first of all, they can't gripe next year if it doesn't work! Right? And, yes, they can offer help because they know what it's like. You know? They can tell you what will work and what will not work. And I think if everybody worked together on it, it comes out a lot better.

Although Admin C was helping her teachers grow as teacher leaders by giving them decision-making capabilities, she was not openly communicating her intentions of building teacher leadership to her faculty.

Lastly, at School Site 4, NTD identified as an informal teacher leader who has big dreams of engaging in formal teacher leadership roles the very next year. Having taught at three schools in two different states, NTD had a lot of various experiences for being an early educator. She saw this as an advantage because she could make comparisons between schools. NTD did not doubt her leadership ability, stating, "I feel like I naturally take on a leadership role. That's just how I've been raised and how my personality is." At her current school, she accredits her continued growth as a novice teacher leader to a high level of communication between teams and across grade levels. She elaborated on the importance of working hard to find new ideas and resources and sharing those ideas with peers. She said, "It's not about hoarding them for myself. I don't feel like that's productive." NTD also discussed the value of feedback in her development as a teacher leader. She explained her eagerness for constructive criticism and how she uses it to guide her teaching.

In alignment with NTD's perspective, ETD also expressed that mentorship and communication were critical factors in novice teacher leadership development. Moreover, Admin D confirmed a high level of informal teacher leadership at her school. She described these teacher leaders as problem-solvers who will have vertical planning meetings on a whim. She explained,

> It will be nothing for me to walk down the hall after school and see like the third or fourth grade math teachers sitting together talking about something. They do that on their own. They are highly driven and take the initiative.

Admin D spoke on the importance of identifying leadership qualities, acknowledging those who show interest in leadership, and building that capacity in them. These comments contributed to evidence of her leadership style favoring a distributed leadership approach. She said that if she sees a teacher with leadership potential, she works to help them develop their leadership skills. Admin D further stated,

> You know, everybody has their strength. Some people want to be educational leaders. Some people want to be in the classroom forever and they don't want a leadership role. That's not their thing. And so, I can build their capacity in a different way. So, I try to give to people who want leadership experience… Those are the people that I pick to be on the leadership team. Those are the people that I send to (leadership) conferences.

During her interview, Admin D made it clear that she values teacher leadership as an integral part of making her school exceptional. In support of this, the online data confirmed School Site 4 as a top-performing school in the state. There were also various

examples of teacher leadership roles on the school website, such as school clubs, events, teams, etc.

All but one novice teacher identified as a teacher leader, with one identifying as a formal teacher leader and two as informal leaders. However, only two novice teachers' school principals agreed with their leadership identity. Factors that fostered and increased novice teacher leadership development included distributed leadership style, positive and collaborative school culture, solid mentorship programs, informal and formal teacher leadership opportunities, effective communication with principals and peer teachers, and consistent feedback that encourages growth and improvement.

Teacher Leadership Engagement

The second code within the Opportunities and Development theme is Teacher Leadership Engagement. This section provides detailed data on how novice teacher participants engage as informal and formal teacher leaders.

NTA considered herself an informal teacher leader due to recently helping her team create Reading units when they ran out of curriculum. However, she reported no other engagement in teacher leadership in her past three years of teaching at School Site 1. Although NTA considered herself to be working informally as a teacher leader, Admin A seemed unaware of this. She declared that she did not consider NTA a natural teacher leader and did not think she held any formal or informal teacher leadership roles. She described her as "too firm" in her position as a kindergarten teacher. Admin A had plans to move NTA to a new grade level next year but learned that she was moving to another district. NTA expressed eagerness to gain more leadership skills and experience, which played a significant role in leaving. She explained, "One of the things my new principal

asked in my interview was ‘How do you want to be a part of us (our school) in the classroom and outside of the classroom?’ And I just thought that was really cool.” It was clear from NTA’s excitement that she was looking forward to growing as a novice teacher leader at her new school the following year and that she felt her new administrators would better align with her preferred school leadership style.

At School Site 2, NTB elaborated her formal teacher leadership role as the team leader for the fifth grade. She mentioned that this role was more clearly defined at her previous school. Admin B told his novice teacher leader, NTB, that her primary job as team leader “was to get emails and distribute information to the other teachers.” However, she described that the “grade-level chair” position at her old school, which was a charter school in the northern US, came with much more responsibilities. At the charter school, the team leader served as a touchpoint for teachers and they were to discuss issues with her before going to the administrators. Team leaders were also responsible for checking everyone’s lessons, managing student behavior for the grade level, and running team meetings each week.

Nonetheless, NTB was happy with her principal’s opportunities to build her leadership capacity, such as allowing her to serve as a mentor to new teachers and participate in school improvement meetings with school and district leaders. She said it was “nice and encouraging” to have the opportunity to serve in a leadership capacity as the fifth grade team leader. Additionally, NTB described that her school partners with an achievement network organization provided by the state to help struggling schools. Online data confirmed that School Site 2 was ranked an F school by the state department of education. As a team leader, NTB participated in meetings with the achievement

network consultants to develop school goals and plan effective strategies for school-wide improvement.

Although NTB was happy in her novice teacher leadership role, Admin B did not have as many things to say about teacher leadership and its role at School Site 2. Again, he stressed that the school leadership team is made up of just the principal and the assistant principal, and could not provide examples of teacher leadership roles in his school other than team leaders and teacher mentors. Admin B described team leaders as messengers who were responsible for getting information out to teachers. However, when asked if novice teachers are capable of engaging in teacher leadership roles, he laughed and said, "Well yes, because they make up almost my entire campus." To Admin B, teacher personality and the ability to communicate trumps years of experience when it comes to engaging in teacher leadership roles. He confirmed NTB's role as the fifth grade team leader and said she got the job "because of her ability to re-deliver messages" and her impeccable organizational skills.

Next, NTC at School Site 3 did not identify as a teacher leader, but she described several different roles that she has that help out her students, peer teachers, and school. She explained, "I mean if anybody needs any help at our school, I don't mind helping." NTC took it upon herself to organize Teacher Appreciation Week after asking permission from her principal. She also sponsors the 4-H club, runs the concession stand for the softball and baseball teams, is the Junior Class Sponsor, and teaches summer school. Her experienced peer teacher, ETC, stated that she does have a leadership role, but not formally. She said she "just stepped into that role" because she has more experience than NTC. Their principal, Admin C, supported this finding, stating they have grade-level

team leaders, but she does not assign those roles. Admin C explained, “One of them decides who wants to be the representative, and we did it that way. But then we gravitated to where we just had one person per hall.” These data show that although teacher participants at School Site 3 are engaging in many formal and informal teacher leadership roles, they are unaware of their work being examples of teacher leadership.

Last, NTD at School Site 4 identified as an informal teacher leader and described how she constantly seeks opportunities for professional development. NTD explained that she works in teacher leadership roles by learning new information and bringing it back to her team, other teachers, and school administrators. She is also in charge of the cheerleader squad and a girls’ running program, which they had to cancel due to COVID-19. Admin D confirmed this comment when she explained that they had had fewer opportunities for formal teacher leadership roles this year because of the pandemic. She stated,

> We haven’t really been that active this year, to be perfectly honest, because of COVID and everything that’s going on. I’ve been trying to take things off their plate, and I’ve done more of their job for them this year than I would normally do. But in a normal year, we would meet monthly, and we look at data, and we look at initiatives, and directions that we need to go when we make plans.

Overall, NTD is engaging in many forms of informal teacher leadership; however, her principal, Admin D, did not identify her as a novice teacher leader.

Additionally, ETD’s identity as a teacher leader also did not align with Admin D’s perspective. Although she serves on the school leadership team and has a history of

serving on district-level teams and committees, ETD was reluctant to identify herself as a formal teacher leader. When asked about her teacher leadership status, she remarked,

> Oh, I mean, formally?? Um, I mean, I have it on my certificate of teaching. Yeah. I mean I would say for reading and social studies I'd be more of a formal teacher leader. I mean, teachers come to me for stuff. I'm on the school leadership team, but I mean we don't really, they don't really have grade-level leaders.

Her comments contradicted Admin D's, who claimed ETD is a grade-level team leader and formal teacher leader. Again, similar to School Site 3, there is a misalignment between what the principals and teachers perceive as formal teacher leadership roles.

Novice teachers are engaging in informal and formal teacher leadership roles in their schools and districts. However, some teachers are unaware of their engagement in teacher leadership and consider it to simply be part of their jobs. What all teacher leadership roles entail can vary greatly from school to school and from district to district. Formal and informal teacher leadership roles are often not recognized by administrators as teacher leadership. Also, many school principals do not consider team leaders to be a part of their school leadership team. In one case, however, the school principal believed the novice teacher was a teacher leader, even though she did not believe that of herself.

Teacher Leadership Aspirations

The third code within the Opportunities and Development theme is Teacher Leadership Aspirations. Many novice teachers in this study described a desire for more leadership opportunities. They also spoke of confusion and uncertainty in how their principals and district leaders chose formal teacher leaders. This section provides detailed accounts of the novice teacher participants' future goals for teacher leadership.

To begin, NTA described her school as using more informal teacher leadership roles. Admin A confirmed that she does not consider team leaders formal teacher leaders. Although Admin A has certain teachers she depends on in each grade level, she does not share that information with the faculty. She thinks formal titles have adverse effects on a team. Admin A wished there were more opportunities for teacher leadership at her school but said it is difficult because it is only a pre-k through second grade school. However, her response style and mannerisms during the interview made it appear that she did not want to relinquish much power to the team leaders. Like Admin D, she said COVID-19 had caused fewer opportunities for teacher leadership in her school.

Because of a lack of opportunities at her school, NTA sought a new teaching position for the following school year. She explained, "That's something that I was looking for in a new job. I wanted to look for somewhere I would be able to be more of a leader in my professional environment." NTA described watching her mom, a former educator, thrive as a teacher leader through school, sports, and curriculum. She supported Admin A's comment that her current school lacks many opportunities for teacher leadership because it is only pre-k through second grade. Online data confirmed the lack of school clubs, organizations, or sports. There were also no teacher web pages or pictures of school events.

Like NTA, NTB also sought to increase her development as a novice teacher leader by working on her mentor teacher certification. She explained that she was only one task away from completion and that she had already been working in her school as a peer mentor. ETB's interview responses support this claim. She, too, was interested in seeking a formal teacher leader certification but had not begun the process. Throughout

the interviews at School Site 2, there seemed to be little mention of teacher leadership opportunities at the district level. Admin B did not mention any district teacher leadership roles, and NTB's reference to her work for the district linked more to school teacher leadership roles. Comments made by ETB further supported this. She explained,

> I don't think we all see what other opportunities there are. It's important that school and district leaders make known the leadership opportunities out there for their teachers so they can work towards them if that sort of thing interests them.

With that, ETB expressed the need for novice teachers to be told about opportunities for leadership by school and district leaders to develop as teacher leaders.

NTC's aspirations for future teacher leadership were to one day be either the graduation coach or the school counselor at her school. She said those positions would be vacant in a few years, and she intended to apply when they did. At School Site 3, all participants saw the counselor as a formal teacher leadership position. As for seeking a formal teacher leadership certification, NTC said she was familiar with the process but did not intend to pursue them. In contrast, ETC was currently working on her certification as a teacher mentor and hoped to complete her remaining tasks in the upcoming months. She also spoke of her role on district-level curriculum teams and said their meetings had been put on hold or canceled due to COVID-19. She hoped that she could continue to work in district-level teacher leadership roles after the pandemic.

At School Site 4, NTD made her teacher leadership aspirations clear by exclaiming, "It's my goal to be on the leadership team next year." However, she was unsure of how to achieve that goal. She stated,

> I think there's one teacher per grade. I don't know if they rotate or how they do it. It's not something that is just talked about. It just seems like it just happens and you just kind of figure it out.

There was confusion at School Site 4 about who the team leaders were and how teachers were selected to be a part of the school leadership team. NTD said there was one team leader from each grade level, but she did not know how they were chosen. ETD noted that there was not necessarily one from each grade level and that they stayed on the team even if they switched grades. Admin D said that she sometimes changes the team members up, but she had not in a couple of years, especially since the pandemic began. None of these participants mentioned or described the process for becoming or selecting a team leader.

Comments by ETD shed some light on why she thinks her school does not openly give teachers a formal leadership title as the team leader. She discussed that assigning formal team leader titles could have negative impacts and claimed,

> By saying, like, this is the team leader for your grade, I feel like once they took that away, it took away some teachers being like, "Oh, she's the leader, so she's in charge." And, you know, it kind of has taken the negative connotation away with changing that.

This perspective aligns with Admin A's reasoning for not assigning formal teacher leadership titles for team leaders at her school. She feels that formal team leader titles cause problems among the team members.

Novice teacher participants desired more leadership opportunities and were unsure how to be selected for or work towards formal teacher leadership roles. Novice

teachers described aspirations for becoming mentor teachers, school counselors, graduation coaches, and future team leaders. Additionally, one novice teacher was changing schools and hoping for greater teacher leadership opportunities and a better relationship with her new principal.

Changing Schools and Districts

The final code within the Opportunities and Development theme is Changing Schools and Districts. Many participants reflected on their experiences at various schools and districts and compared them to teacher leadership roles at their current schools. They discussed how previous experiences, or even experiences of some of their friends from other schools, affected their opportunities for teacher leadership. Also, the school leaders discussed how the dynamics of faculty affect novice teacher leadership engagement at their schools.

NTA wanted more opportunities for teacher leadership and was moving to a new school to attain those goals. However, it seemed that persuasion from teacher friends at other schools also played a part in her decision to leave. She mentioned that her friends taught in the district she was moving to, and they told her how leadership roles are assigned at their schools. Their comments seemed to help persuade her to move to a new school to grow as a teacher leader.

Oppositely, NTD spoke about how she constantly has to listen to her teacher friends from another district complain about their schools and administrators. She described how she is the one at the "good school" and is always trying to persuade her friends to switch districts. According to NTD, her school has a lot to offer aspiring novice teacher leaders. She said that since it is her third school to work at, she has a lot to

compare it to. She described a feeling of trust and security from her administrators, which she did not have at her previous schools. She explained,

> I have been at schools where it was like radio silence and teachers were almost afraid to try stuff and try new ideas. Whereas here, I feel like there's more freedom and I feel like the administrators kind of set that tone of, you know, "Hey, try it and let us know how it goes!" It may be successful, it could be a flop, but try it.

For NTD, having the freedom from her administrators to collaborate with other teachers and teams, try new ideas, and experiment with lessons and strategies helps her grow as a novice teacher leader.

Surprisingly, Admin D admitted that she has no formal novice teacher leaders at her school because she has many veteran teachers already working in those positions. She also said that she does not have a ton of novice teacher leadership engagement because she does not have many novice teachers. She struggled to think of even one, who happened to be NTD, but she was uncertain if she fell within the 0 to 5 years of teaching range. Admin D said that she does not exclude novice teachers from leadership roles; she just has so many excellent teachers with experience that they tend to fill up her positions. Ultimately, at School Site 4, there are few novice teachers and, therefore, few novice teachers engaging in leadership roles.

At School Site 2, where novice teachers outnumber experienced or veteran teachers, novice teachers actively engage in formal leadership roles. NTB discussed teacher leadership at previous schools and said the teacher leadership dynamic at her current school is not as structured as at her old school in the northeast. However, she did

not see this as a bad thing, just different. Her old school was a charter school where the "grade-level chairs" had much more responsibility as team managers.

Similarly, ETB also made comparisons between teacher leadership roles at her old school and those at School Site 2. She explained,

> In my old district, each grade level had a team leader. So I was that leader for two years and then they also had leadership roles for the school as a whole that would go to the trainings (down south) or each summer that would help out with any new teachers that are fresh from college, or just new teachers to the school, and help train them, guide them to do observations, et cetera.

ETB said School Site 2 provides similar teacher leadership opportunities. However, since she was new to the school, district, and grade this year, she was just observing and figuring out where she could help out in a leadership role the following year. She felt certain that, given her previous experiences, the school leaders were looking for her to do more in the future as a teacher leader.

In contrast, the participants at School Site 3 did not have experience from previous schools to make comparisons about teacher leadership roles and opportunities. NTC had no intentions of changing schools at any point in her career. She said that she did not know how things were done at other schools; yet she imagined that teacher leadership looked much differently at larger, urban, or suburban schools. According to NTC, she attended School Site 3 while she was in grade school, and she said the teachers who worked there never left. Admin C verified this statement, declaring that her teachers are dedicated to their small, rural community. She had teachers who had been working there since the 1980s.

Although they seldom have teachers coming from other schools and districts, the participants at School Site 3 still value outside experience in their teacher leaders. NTC reported they have many teachers who completed alternative certification and some teachers who are not certified. Admin C confirmed this statement and was very proud of it. She explained,

> We have a lot of teachers with alternative certifications. People don't want to go into teaching anymore. We have a lot of people that are family-oriented and, you know, they want to be with their kids, and they may find out once they get out there that it's not for them. So, I encourage anybody to do that. It's an easier way to get your degree to be a teacher than it is to be a teacher the normal way. I know I have one from out in the business world and she knows a lot of stuff that she's helped us with, you know, just technology-wise. Stuff that she had before she came in and then she can apply that to teaching mode.

For Admin C, entering a teaching position with previous experience in the workforce was an advantage. The teachers at her school felt the same way. They viewed teacher leadership much differently than the other participants and were not as accepting of novice teacher leadership, especially with teachers who were recent college graduates.

Novice teachers compared teacher leadership experiences and opportunities at various schools and districts. They discussed how working at different schools has changed or could change their novice teacher leadership development and how teacher friends often persuade one another to switch schools. Also, the school leaders expressed how different school dynamics affect novice teacher leadership development, such as the number of beginning and experienced teachers on faculty. Schools with more

experienced teachers had less novice teacher leadership opportunities than those with more novice teachers on their faculty, while one school with low teacher turnover rates valued novice teacher leaders from alternative certification programs and previous work experience.

Summary of Opportunities and Development

All novice teacher participants were either currently seeking more leadership opportunities or had specific plans on how they hoped to grow as teacher leaders in the future. They were each currently engaging in teacher leadership activities, even though they did not all identify themselves as teacher leaders yet, and their administrators did not agree on what novice teacher leadership roles were. Teachers and administrators did agree that having prior experience, either from a different school or different career, impacts the leadership opportunities novices may have, along with the leadership style of the school, the number of experienced teachers available for leadership roles, and the number of student programs available for teacher leadership. Formal opportunities are driven by the administration and often are not clearly defined, both what those opportunities are and how to achieve them, while informal opportunities are frequently not recognized as teacher leadership.

Acceptance and Support

The final theme is Acceptance and Support. Four codes within this theme reveal the patterns and my significant results from all interviews. The four codes for Acceptance and Support include Years of Experience, Personality and Leadership Skills, Administrator Support, and Peer Support. These codes encompass the participants' perceptions of how novice teachers are being accepted as teacher leaders by experienced

peers and school administrators. Furthermore, this section explores what factors best support novice teacher leadership development.

Years of Experience

The first code within the Acceptance and Support theme is Years of Experience. Novice teachers disclosed how their years of experience affect their acceptance as teacher leaders. The participants also reported the benefits of experienced teacher leadership versus novice teacher leadership.

NTA explained that she felt ready for informal leadership roles when she began her teaching career. However, her attitude changed when she started teaching at School Site 1 as a brand new teacher. She described,

> I think, in one mindset, when you're fresh out of college you think about what all you can bring to the table. But then, you're immersed in a bunch of teachers who have done this forever and (then you think) maybe the new idea is not a good idea.

To NTA, gaining more experience allows a novice teacher to gain confidence. She mentioned that starting to express ideas to your team slowly helps you become more comfortable, and then you can begin to do it more frequently. This aligned with Admin A's perspective. Although they differed on many teacher leadership topics, Admin A agreed that experience matters because you need the confidence to lead a team. However, she said that teachers with 20 or more years of experience often shy away from leadership roles and responsibilities.

Similarly, ETB discussed how some veteran teachers get "stuck in their ways" and have difficulty taking advice from novice teachers. She described the benefits of

novice teacher leadership, stating, “I think having someone that’s new and fresh out of school, it kind of gives you that perspective of what are some new things that are going on, especially with our children today that are so hooked on to technology.” ETB talked about her experiences as a new teacher coming in and not seeking a leadership role right away. As a new teacher in the district, she said that it was important for her to first observe before being a leader. Her comments aligned with Admin D’s, who discussed that novice teachers begin leadership development by listening during team meetings before contributing.

Admin B described his support of novice teacher leadership by saying it is necessary at his school. Since most of his teachers at School Site B are novice teachers, he has no problem placing them in leadership roles. Admin B further explained that he looks at teachers’ previous experiences when assigning teacher leadership roles, not necessarily their years of experience. He looks at things they have done in the past that show they can handle more leadership responsibilities. However, he said that he would not give a teacher leadership role to a first-year teacher.

Admin D also stated that novice teachers should not have formal teacher leadership roles as first-year teachers. However, she feels that they can work as informal teacher leaders because of previous experiences. Yet, she fears they may not have much support from their peer teachers due to their lack of classroom experience. She stated,

> That doesn’t mean that informally, in their team, that they’re not going to have input, because they certainly should. Just because you haven’t been in the classroom doesn’t mean that you didn’t learn something, or see something, or

> have a good thought, or good idea. But I don't think that you're going to have buy-in from your staff as a brand-new teacher.

Admin D added that teachers with at least 4 to 5 years of experience would likely have more support from their experienced peers. As mentioned earlier, Admin D currently does not have any novice teachers serving as team leaders. However, she claimed that, after they gain more experience, she would consider removing some veteran teachers from those positions and replacing them with novice teachers.

As for the other participants at School Site 4, NTD had mixed feelings about how years of experience affect how novice teachers are accepted as teacher leaders. She elaborated that novice teachers are typically energetic and exhibit a high level of motivation. She described herself and her teacher friends from college as excellent teachers who work hard and are not afraid to try new things. She said that some teachers are receptive to that, and some are not. NTD explained that she has seen some experienced teachers get "stuck in their ways" and "not want to change or grow." She said they just "flat line out."

The experienced teacher participant at School Site 4 had a similar point of view on novice teachers as teacher leaders. She described that novice teacher leadership is necessary by stating, "How else are they going to learn?" ETB placed more emphasis on natural leadership ability than years of experience, declaring that she, herself, was a novice teacher leader. She further explained, "I think that even novice teachers should be exposed to some leadership opportunities, especially because some just are natural-born leaders. Well, I mean, they're Type-A control freaks, right? They just start, and they just roll with it and go." ETB said that she thinks novice teachers are often more capable of

teacher leadership roles because they have the time to do it. She noted that most novice teachers do not have families or kids yet, making them more available to take on extra responsibilities.

On the opposite end of the spectrum, NTC felt that novice teachers' lack of experience prohibits them from being effective teacher leaders. For example, NTC said she does not have enough experience to be a teacher leader. She said she is not knowledgeable enough on content and teaching skills to be considered for a leadership position. The experienced teacher at her school shared her perspective. ETC also does not think novice teachers can participate in teacher leadership roles. She described herself as an "alt cert" teacher, like NTC. She said that she did not feel comfortable being an effective teacher until year 10. For this reason, she feels that year 10 is when teachers are ready to take on leadership roles. ETC discussed how some novice teachers come in and "try to act like they know everything," and it ends badly for them. Contrastingly, Admin C said novice teacher leadership is possible and that she sees teachers ready for leadership by the third year. She stated,

> I've seen people and teachers that go in it and they just flourish. And by the third year, they are leaders. And they're ready. I know some that even go into administration, you know, they want to go into their part.

Admin C suggested her daughter was an example of this, as she began working in a school leadership position as the assistant principal after just her third year of teaching.

Participants agreed that years of experience do affect how novice teachers are accepted as teacher leaders. Some feel that fewer years of experience is a benefit because novice teachers can bring increased energy and fresh ideas to a team, while others believe

more years of experience is needed to build confidence and gain peer support. NTC and ETC described that teachers are not ready for leadership roles until they have at least 10 years of experience; however, their principal declared that some novice teachers could be ready for leadership roles as early as year 3. Finally, many participants agreed that novice teachers should be provided with teacher leadership opportunities so that they can continue to learn and develop as leaders.

Personality and Leadership Skills

The second code within the Acceptance and Support theme is Personality and Leadership Skills. As briefly mentioned in the Years of Experience section, many participants did not emphasize years of experience to determine if novice teachers were ready for teacher leadership roles. Instead, a pattern emerged where many of them, mainly administrators, placed greater value on the individual teacher's personality and inherent leadership abilities. This section explores this topic in greater detail, providing a closer look at how novice teacher leadership acceptance depends on individual personality traits.

To begin, the administrators showed strong support for the importance of personality and leadership skills when discussing novice teacher leadership. For example, Admin A stated that novice teacher leadership could be developed if beginning teachers have the correct personality type and leadership skills. Admin A calls these novice teachers "go-getters" and said it would take a few years to earn a leadership role. Admin A said that novice teacher leaders must have the right attitude, be helpful, and be focused on team success. Similarly, the term "go-getter" was also used by NTD to describe what she perceived as the attitude of novice teachers.

Next, Admin B has strong opinions about novice teachers engaging in leadership roles. He feels that it is not about years of experience as to whether or not he chooses a teacher for a leadership role; it is simply about the person. He looks for someone who demonstrates an ability to communicate well and take on responsibilities. He chooses team leaders based on whether they are organized and dedicated to their jobs. He looks for leaders in their classrooms and those who set good examples for their peer teachers. Like her principal, NTB claimed that the principal assigns the formal team leaders based on leadership skills and abilities, not years of experience. Admin B mentioned how NTB is a novice teacher with "natural leadership skills that just kind of shine through." He explained that this makes her more capable of working in a teacher leadership role than other teachers with her experience level.

Third, Admin D discussed the importance of identifying leadership traits within novice teachers so that school leaders can then focus on building capacity within those teachers. Admin D trains her teacher leaders to do school leadership work. Developing teacher leaders exemplifies her leadership style as a distributed leadership approach. She provides teachers with opportunities to work as part of the school leadership team. However, this is an opposing perspective from some other administrator participants. She stated,

> My goal as an administrator is to build that capacity in my staff and in my leaders so that they can do whatever it is I'm asking them to do, whether it's PLCs or RTI, or better engagement, or whatever it is, without me being there to lead it.

Like Admin D, ETB spoke about the importance of administrators noticing leadership qualities in novice teachers. She described it as when "they see that sort of 'diamonds in

the rough' leader in you" and make an effort to build leadership capacity. Although Admin D is a firm believer in developing teacher leaders, ETD seemed more familiar than her with how novice teachers were engaging in leadership at their school. She discussed how some of their novice teachers worked on master's degrees in educational leadership and contributed to discussions during faculty meetings. She said their leadership personalities can be seen when they speak up and share their knowledge on familiar topics. ETD described these occurrences as "a breath of fresh air."

Participants placed greater value on novice teachers' personalities and inherent leadership abilities, rather than just their years of experience, when being considered for teacher leadership roles. Most school leaders feel that novice teachers can be more easily accepted as teacher leaders if they have the right attitudes and characteristics for effective leadership. Some administrators look at novice teachers' previous experiences that demonstrate their leadership capabilities and place less focus on years of experience when looking for potential teacher leaders. Additionally, some school leaders look for ways to build capacity in novice teachers so they can continue to grow in their leadership skills and abilities.

Administrator Support

The third code that emerged within the Acceptance and Support theme is Administrator Support. This section presents administrators' essential roles in novice teacher leadership development. Novice teachers gave their accounts of positive and negative encouragement from school and district leaders and discussed how feedback impacts them as novice teacher leaders.

At School Site 1, NTA gained more support from her grade-level team than her administrators as a developing teacher leader. She described this by stating,

> I get more from my team members and just from my grade level than from administrators. We do have a brand-new principal. Last year I had a principal who had been in elementary for years and years and years. She was very compassionate, and I knew that words meant a lot to her. Maybe that was just her love language, I don't know. But our new principal moved from high school down to elementary and just has a different dynamic. It's just not as loving.

NTA's mannerisms and facial expressions indicated that she did not have a good relationship with Admin A. She was excited to be moving to a new school where the principal that interviewed her was interested to know how she wanted to help the school and be involved with leadership roles outside of the classroom. NTA stated, "That's just not something that is considered here at my school."

At the same time, Admin A spoke of NTA as a novice teacher who is not ready for teacher leadership roles. When speaking about the importance of the right personality for leadership roles, Admin A said the following of NTA:

> She's pretty firm with these kids. I'm thinking she's just a little too much for kindergarten. So, I was ready to move her up into a first or second grade spot. But luckily, she is moving to be with her family in another town, so it worked out.

Admin A spoke of moving teachers around from year to year as needed if she notices personality conflicts or teachers struggling at a certain grade level.

Conversely, at School Site 2, NTB spoke highly of her principal, Admin B. It was clear that although this was only her second year at School Site 2, she had great respect

for her administrators. NTB said her school leaders encourage her to seek teacher leadership opportunities, such as working on a state teacher leadership certification, and support her by providing trust and not constantly observing her as a new teacher. She explained,

> At my old school, we were observed every week for an hour, and it was recorded. Then you'd have to meet with your vice-principal about it on a weekly basis. And in some ways, that was really great to have for my first two years because, I mean, my growth was very fast because I was constantly getting feedback. But it was also very stressful.

ETB also described a good relationship with her peer teachers and administration. ETB said that recognition from administrators is critical for fostering novice teacher leadership in schools. She added that school leaders must acknowledge teachers' leadership qualities and provide them with opportunities to work in teacher leadership roles. ETB discussed the value of feedback from administrators and peer teachers, stating that novice teachers should be told by school leaders what they are doing well and given ideas for improvement when needed.

School Site 3 also had great alignment among participants on the importance of administrator support. NTC described a good relationship with her school leaders, particularly with her principal. She said that she and Admin C text each other frequently and that the faculty use a GroupMe account where they message one another. She said they are all like family, and they help each other when needed. NTC also shared,

> As far as our administrators, they do give us a lot of feedback. They leave us notes when they come into our classrooms. The notes might say 'Hey, I noticed

> this. How about you do it this way next time?' But it's always suggested in a positive way. It's more constructive feedback.

Despite strong support from her school leaders, NTC did say that she does not feel supported or encouraged by her district leaders. She described how people "pop" into their classrooms once a year, unannounced, and give critical and negative feedback online. NTC said it is frustrating and discouraging as a novice teacher.

Finally, NTD was much happier at her current school than at her previous one. She said the culture of School Site 4 was much more conducive to her personality and performance as a novice teacher leader. However, she desired more feedback from her principal and assistant principal on how she was doing and what areas she needed to improve. She said that she rarely has anyone come in or give constructive feedback to know if she is "on the right track" or working toward school goals. Admin D spoke to this when discussing the importance of school culture and teacher autonomy for novice teacher leadership development. It seemed that, just as NTD valued being able to try new things and being supported by her administrators to "do their own thing," she was not a fan of the flip side, which meant less "checking in" and accountability.

Further to the point, Admin D explained that the school faculty experienced a shift in the last few years where they lost some teachers who were "stuck in their old ways." She bragged that they now embrace a school culture that invites new instructional ideas and strategies. Admin D expressed that, along with maintaining a positive school culture, communication, feedback, and teacher leadership opportunities are essential for novice teacher leadership support. She bragged about her ability to support teacher leadership development by stating that several previous teacher leaders from her school

had been promoted to district-level positions. This aligned with comments from NTC about teachers moving up in her district after demonstrating teacher leadership at the school level. Admin D stated, “We’ve had, maybe, five teachers move up to district positions in the past three years. Maybe six. I credit that to their experiences with leadership roles here.”

Administrator support is essential for novice teacher leadership development. Many novice teachers reported excellent support from their school principals, enabling them to grow and develop as novice teacher leaders. NTs B, C, and D all described good relationships with their administrators and effective communication with them. However, NTD desired more feedback and direction from her principal to know whether or not she was doing a good job. NTA’s support from her school leader differed from the rest of the participants in that she did not have a good relationship with her principal, and did she feel supported as a novice teacher leader.

Peer Support

The final code that emerged within the Acceptance and Support theme is Peer Support. This section presents the importance of teacher peers in novice teacher leadership development and engagement. Novice teachers gave accounts of positive and negative encouragement and feedback from novice and experienced peers and how it has affected their development as teacher leaders.

NTA said that she gets more support at School Site 1 from her peer teachers than from her administrators. She described her relationship with her peers as better than that with her school leaders, stating, “I think it’s more of a supportive team here than it is administration.” NTA spoke of her strong connection with an experienced teacher on her

team who has served as an informal mentor for her. She worked closely with her in an informal teacher leadership role to create curriculum and thematic units for their team this year. When speaking about leaving her supportive peer and moving to a new school next year, she said,

> I have to find my new person. She's just a very good role model with the way that she works with all of us to keep us all in line and making sure that we're all reaching for the same goal. You know, she's wonderful. I just hope that I can take a little bit of her with me when I go.

Her principal, Admin A, explained that to be accepted and supported by experienced peers, novice teachers must "first prove themselves" to their team members. Her perception aligned with Admin D's comments about how novice teachers may struggle to share their ideas as informal teacher leaders because they will not have "buy-in" from their teams.

Admin D's novice teacher, NTD, described it is the responsibility of the entire faculty and staff to build a "sense of community, trust, and openness" that best supports novice teacher leadership. NTD loves having a team of just four teachers and thinks it is the most appropriate size for an effective team. She receives encouragement and support from her novice teacher peers but not more veteran teachers. NTD explained that she and her partner teacher are better at supporting one another because they have the "same level of energy and hype." However, she does not get much support from her peer teacher, who teaches the same content as her. She described her as "on the way out the door."

ETD's comments contributed to these findings at the same school when she discussed how negative support from peer teachers just depends on the person. She

explained how there could be much intimidation from more veteran teachers when coming in as a novice teacher or even a teacher from another school. ETD described her own experiences by stating,

> It was kind of a situation where if you are sharing something (with your new peers) that could be seen as you're trying to be better or trying to show off, but if you don't share it, then you're considered as trying to be sneaky. So, it was a lose-lose situation.

ETD claimed that she almost left School Site 4 because her peers were not accepting her as a novice teacher leader when she was first hired. However, as mentioned previously, the school culture has improved in recent years.

As for NTC, she discussed having no problems being accepted to take on roles at her school. Although she did not consider any of her extra responsibilities as teacher leadership, she said she never felt unaccepted or threatened. NTC thinks it takes time to build relationships and feel like you are part of a new team. She said it did take time for her to become more comfortable and feel supported after switching from second grade to fifth grade. Her peer teacher, ETC, thinks that novice teachers are uncomfortable asking for help. At the same time, she thinks veteran teachers, like novice teachers, do not want help either. She described a "sweet spot" for leadership potential that begins after 10 years of experience and diminishes when teachers cross the 20-year mark.

Interestingly, NTs A, C, and D all had a lot to say about the level of support and feedback they received from their peers. For NTC, having a peer teacher that she can go to with questions or concerns about their students, curriculum, or technology issues is a huge support. She values having someone to lean on and vent to, stating,

> We're in each other's classroom in the mornings we talk about so-and-so. This student had this happen at home, how should we handle it. We talk in the hallway a lot about what's going on and how the kids are behaving or doing that day.

Similarly, NTD explained how she is supported by her peers as a developing teacher leader, describing how they encourage one another. For example, she stated,

> The other day I did a Circle Time topic that lasted so long and the resource I used was the app, Tik-Tok. After the lesson, I wanted to share it with her because it was successful, and my students had very engaging conversations. We teach different content, so we have to make some adjustments, but we share ideas and support each other.

NTD also mentioned how she does not feel supported by the instructional coach at her school. She said that her main focus is lower elementary grades and that she never provides them with resources or support, stating, "anything like that just usually happens within our hallway and comes from other teachers."

However, things appeared quite different for NTB, the only novice teacher participant serving as a team leader. When asked if she gets feedback or support from her peers as a novice teacher leader, she responded, "I think I do. I mean, people thank me for my help." Although NTB did not mention having trouble being accepted by more veteran teachers, her principal, Admin B, did. He explained,

> Well, like with (NTB), she has had some trouble because she's had teachers on our team that were much more veteran than she was. But I chose her to be the leader because of her ability to re-deliver messages that I have and to do and keep

> the team on task. And her organizational skills are impeccable. So, I mean, she's got the job.

Admin B said that to resolve such issues, he mentors his struggling team leaders and gives them ideas to help bring everyone back together.

Peer support is vital for novice teacher leadership development. Most novice teacher participants reported great support from their peer teachers; however, some described more support from fellow novice teachers than more veteran teachers. Additionally, many novice teachers expressed greater support from their peer teachers than their administrators. Finally, the novice teacher who spoke the least on peer support was NTD, the only formal novice teacher participant in the study.

Summary of Acceptance and Support

All but one novice teacher participant claimed to be accepted as teacher leaders in their schools, despite lack of experience. The novice teachers said it often takes time to gain the confidence for teacher leadership roles, yet they feel they have a lot to offer their teams and schools as novice teacher leaders. When being considered for teacher leadership roles, most participants placed greater value on novice teachers' personalities and leadership skills than on their years of experience. School leaders discussed looking at what novice teachers have done in the past that shows their leadership role capabilities. Administrator and peer support were discussed as essential for novice teacher leadership development. Many novice teachers reported excellent support from their school principals, but some desired more feedback and suggestions for continued growth. Similarly, most novice teacher participants reported great support from their peer

teachers; yet, some of them described more support from fellow novice teachers rather than more experienced or veteran teachers.

Quantitative and Qualitative Combined Results

This section combines data analysis results from both phases of my mixed methods research study on novice teacher leadership development and engagement. Quantitative and qualitative results on how years of experience affect levels of teacher leadership identification, readiness, and engagement are compared here, revealing how the case study results support or contradict the online survey results.

Teacher Leadership Identification

In the quantitative phase of my research, survey data from 306 public elementary school teacher respondents showed that years of professional teaching experience significantly affects how teachers identify as teacher leaders. Teachers with 11 to 15 years of professional teaching experience had greater levels of teacher leadership identity (TLI) than teachers with 0 to 5 years of experience. No other significant differences were found between the groups. Interestingly, the qualitative results both support and contradict this finding. In support of the quantitative results, the teachers at School Site 3 claimed that novice teachers are not ready for teacher leadership roles until they have had at least 10 years of professional teaching experience. Additionally, the two more experienced teacher participants with 11 to 15 years of experience identified more as teacher leaders than their participating novice teacher peers. For example, with 12 years of professional teaching experience, both ETC and ETD discussed their roles as team leaders for their grade levels and their participation in formal teacher leadership roles at the school and district levels.

However, the qualitative results also contradict the quantitative results. Even though ETC and ETD identified themselves as formal teacher leaders, they were much more reserved when discussing the significance of those roles than some novice teacher participants. For example, NTD proudly considered herself an informal teacher leader and was confident in her potential for formal leadership roles. Similarly, NTB had the highest level of TLI among the novices, was working as a formal teacher leader, and was close to completing her endorsement as a mentor teacher. Both NTD and NTB spoke informatively and certainly about their roles as novice teacher leaders, and both had clear intentions of continuing their leadership development.

Another significant TLI result during the quantitative phase was the interaction between years of teaching experience and the number of schools taught at. The qualitative data strongly supports this result in that the number of schools that all four novice teacher participants have taught at remarkably affected how they identify as teacher leaders. For example, the two novice teachers who had teaching experience at only one school had misconceptions about informal teacher leadership and were unaware of their engagement in informal teacher leadership roles. In contrast, the novice teachers with experience at two to three schools had a greater understanding of informal teacher leadership roles and were actively seeking more opportunities for leadership.

Additionally, my qualitative results showed that school location, school achievement levels, school leadership style, school culture, and teacher certification programs affect levels of teacher leadership identity. Administrators committed to distributed leadership practices more effectively fostered novice teacher leadership in their schools and led to increased levels of TLI among participants. However, there were

common misalignments between the school principals' perceptions of teacher leadership roles and that of their novice and experienced teachers. As a result, most teacher participants' TLI levels did not align their levels of engagement in teacher leadership activities at their schools and districts.

The significant results on TLI from quantitative data were largely supported by the second phase of my research. My embedded, single-case study data provided details and a more in-depth look at how novice teachers perceive teacher leadership. I also gained valuable insight from multiple perspectives on how novice teachers' years of experience affects their ability to identify and be accepted as teacher leaders and engage in teacher leadership roles.

Teacher Leadership Readiness

After analyzing the survey data on teacher leadership readiness (TLR), the results showed that years of professional teaching experience does not significantly affect teachers' readiness for teacher leadership roles. The qualitative data strongly support this result since nine out of 11 teacher and administrator participants claimed that novice teachers can take on leadership roles. Furthermore, all novice teacher interviewees were engaging in formal or informal teacher leadership roles inside and outside the classroom. Although most interviewees agreed informal teacher leadership was the most appropriate form of leadership for novice teachers, Admin C claimed some teachers are simply destined for leadership roles and can begin formal enactment as early as year three.

Qualitative results also showed that most case study participants placed much greater emphasis on personality and leadership skills than years of experience when considering teachers' readiness for leadership. For example, inherent leadership qualities

such as personality, drive, respectfulness, and professionalism were all described by administrators and teachers as more critical components of effective teacher leadership than years of experience. Additionally, most interviewees associated effective teacher leadership with someone who exceeds normal expectations and gives extra effort in teaching, is focused on team and school goals, and is a good communicator. However, many participants described teaching experience and pedagogical knowledge as important components of effective teacher leadership.

Next, the qualitative data showed many novice teacher and administrator interviewees feel that teachers with limited experience could be ready for leadership opportunities within their first 5 years of professional teaching, depending on the school or team dynamics. For example, Admin B explained that novice teacher leadership is possible and necessary when a faculty, like his, is primarily made up of beginning teachers. Yet, at School Site 4, experienced teachers greatly outnumber novice teachers, leading to fewer opportunities for novice teacher leadership engagement.

Another significant result from my quantitative data analysis was that teaching certification programs significantly affect the TLR factor of teacher autonomy beliefs. However, this effect does not depend on years of professional teaching experience. The qualitative data also supports this result since teachers with college of education certifications and iTeach certifications participated in the study and had differing levels of TLR. For example, NTB and NTD had high TLR levels coming from college of education programs. Oppositely, from an alternative teaching program, NTC had low levels of TLR and considered her lack of experience and pedagogical knowledge to hinder her from taking on leadership roles. Furthermore, at School Site 3, ETC and NTC

opposed novice teacher leadership unless the beginning teachers were older and entered the profession from the workforce with an alternative teaching certification.

The TLR results from the qualitative phase of this study support the significant quantitative results and show that years of professional teaching experience significantly impacts novice teachers' readiness for teacher leadership roles.

Teacher Leadership Engagement

In the quantitative phase of my research, data analysis results show that years of professional teaching experience affects teacher leadership engagement (TLE). Specifically, the results indicate that teachers with 16 or more years of experience engage in more teacher leadership roles relating to preservice teacher education than teachers with 6 to 10 years of experience. Although there were no case study teacher participants with 16 or more years of experience, nor were there any participants working with preservice teachers, my qualitative data did show that years of experience significantly affect teachers' levels of TLE for teachers with 3 to 12 years of experience.

All novice and experienced teacher participants in the qualitative phase were actively engaged in teacher leadership. However, as seen in TLI and TLR results, years of experience affected levels of TLE depending on factors such as peer and administrator perceptions, school and team dynamics, and teachers' previous school or work experiences. For example, there were no instances where the novice teacher and the principal completely agreed on the novice teacher's engagement in teacher leadership. Similar to the TLI results, some novice teachers' perceptions of TLE were impacted by their school leader and experienced peer teachers' definitions of teacher leadership. Also,

the number of novice versus experienced teachers on a school's campus affected levels of TLE, along with how many teachers were on a grade level or content area team.

The qualitative data also revealed that novice teachers' engagement in leadership activities was affected by their administrators' and peer teachers' levels of acceptance and support. All but one novice teacher participant claimed to be accepted as teacher leaders in their schools, and most said it takes time to build confidence for teacher leadership roles. While many novice teachers in my study reported excellent support from their school principals, some desired more feedback and suggestions for continued growth. Furthermore, several participants discussed how negative support as novice teacher leaders caused them to either change schools and districts or strongly consider it.

Another significant quantitative result was that years of teaching combined with school location affects TLE in school change/improvement roles and activities. My case study results connected to this because novice teacher participants from urban, suburban, and rural public schools were involved in the study. The novice teacher interviewees had varying levels of engagement in teacher leadership roles pertaining to school change and improvement, depending on their school location. For example, NTB was the only novice teacher participant teaching at an urban school and the only one who identified as a formal teacher leader. With the highest levels of TLI, TLR, and TLE, she described her work with school and district leadership teams to increase school achievement. However, novice teacher participants at suburban schools, like NTA and NTD, wanted more involvement in school and district teacher leadership roles.

The next important set of findings from my survey data is that years of teaching experience and number of schools taught at has a significant effect on TLE in the

categories of school/district curriculum work, the professional development of colleagues, school change/improvement, and all categories combined. Again, the qualitative data results strongly support the quantitative results. For example, NTA only had experience at one school and described her work with creating school curriculum materials for her grade level team. On the other hand, NTB was teaching at her second school and engaging in large-scale curriculum and school improvement initiatives with her administrators and district leaders. Although the novice teacher and experienced teacher interviewees described working at multiple schools as a significant factor that impacts their teacher leadership engagement, the school principals emphasized school and team dynamics as factors that affect novice teacher leadership opportunities.

My qualitative phase's TLE results support my significant quantitative results, showing that years of professional teaching experience does not significantly impact novice teachers' engagement in formal and informal teacher leadership roles.

CHAPTER 5

DISCUSSION

The current mixed methods research study was conducted to contribute to the empirical research on novice teacher leadership. After a review of the literature, I found a significant need for additional research on the topic of novice teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020). Specifically, there was a need for further exploration of novice teacher leadership development from novice teachers' perspectives (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017), as well as what school contexts foster novice teacher leadership development (Lai & Cheung, 2015; Scales & Rogers, 2017). Through my research, I aimed to understand better how novice teachers are developing as teacher leaders and engaging in teacher leadership roles. Furthermore, I hoped to provide new evidence to support the equal distribution of teacher leadership roles to all teachers, not just those with higher levels of professional teaching experience.

A mixed methods research design was used to collect and analyze online survey data and instrumental case study data (Creswell & Plano Clark, 2018). My theoretical lens was distributed leadership theory, which focuses on leadership practice through interactions between school leaders, followers, and their situation (Spillane, 2006). Through this lens, I built a research design that included multiple forms of data collection

from various stakeholders to gain a deep understanding of what school and leadership factors affect novice teacher leadership development. I composed four research questions based on the key factors of teacher leadership development identified in my conceptual framework, Sinha and Hanuscin's (2017) Teacher Leadership Development Process Model. The first three questions were answered in the quantitative phase of my research. These questions asked what differences exist between teachers' years of professional teaching experience and their identification as a teacher leader, their levels of readiness for teacher leadership roles, and their engagement in teacher leadership activities. The fourth research question was answered in the qualitative phase of my study. It asked how public elementary school novice teachers perceive teacher leadership roles and teacher leadership engagement in their school or district.

This chapter presents a synthesis of my study results and discusses the significant findings on novice teacher leadership development and engagement. Next, I provide implications and recommendations for stakeholders and future research on this topic. Finally, a conclusion of the research is provided to summarize the study.

Synthesis of Findings

Throughout this section, the findings of my study are discussed in three categories based on my conceptual framework and the quantitative research questions that I answered. The categories include Teacher Leadership Identity, Teacher Leadership Readiness, and Teacher Leadership Engagement. The qualitative research question results are woven in to provide a deeper understanding of how novice teachers develop as teacher leaders and what factors significantly affect that development.

Teacher Leadership Identity (TLI)

The results of my mixed methods research study show a difference in TLI based on years of experience. My quantitative data showed that teachers with 11 to 15 years of experience identify as teacher leaders more than those with 0 to 5 years of experience. I found no other significant differences in TLI among the teacher experience level groups. The case study data both support and contradict this finding on novice teacher leadership development.

To begin, the qualitative data show ETC and ETD were the only participants belonging to the 11 to 15 years of experience level group and, although they both identified at higher levels of teacher leadership than the novices, they were less confident than some of the younger teachers. For example, with 12 years of professional teaching experience, both ETC and ETD served as team leaders for their grade levels and also participated in numerous teacher leadership roles at the school and district level. Although ETC identified herself as an informal teacher leader, her principal described her role as an example of formal teacher leadership. She also casually explained how she is working on a formal mentor teacher certification and is near completion. Similarly, ETD was also interested in seeking a formal teacher leader certification as a mentor but was unsure how to begin the process. She, too, was hesitant to refer to herself as a formal teacher leader, even though her principal considered her one.

As for the novice teacher participants, NTC did not consider herself a teacher leader even though she was engaging in several informal teacher leadership roles and was considered an informal teacher leader by her principal. Similarly, NTA had somewhat low levels of TLI but claimed her role as a new informal teacher leader with strong

ambitions for further leadership development. However, NTD had 4 years of experience and proudly considered herself an informal teacher leader. Although NTD was confident in her potential for formal leadership roles, her principal did not mention her work at School Site 4 as teacher leadership. Similarly, NTB had the highest level of TLI among the novices, was working as a formal teacher leader, and was close to completing her certification as a teacher mentor. Both NTD and NTB were sure of their roles as novice teacher leaders, and both had clear plans to continue their leadership development.

Therefore, the quantitative results indicate that elementary public school teachers with 11 to 15 years of experience identify more as teacher leaders than those with 0 to 5 years of experience. However, the qualitative data show that many beginning teachers are proudly identifying as teacher leaders, ready to discuss their leadership potential, and eager to further develop as teacher leaders. These findings are significant because there are no current studies that specifically identify how years of teaching experience affect levels of teacher leadership identity. However, my results support the work of Carver (2016), who posed whether millennial teachers would more readily identify as teacher leaders at earlier stages in their careers.

Additionally, these combined TLI findings support Sinha and Hanuscin's (2017) proposed Teacher Leadership Development Process Model, which explains that teacher leadership occurs when a teacher's views of leadership, engagement in leadership practices, and development of leadership identity are all aligned. According to Sinha and Hanuscin, teachers better understand teacher leadership as they develop as teacher leaders. Thus, emerging teacher leaders need time to explore definitions of teacher leadership so they understand better how they can impact teacher leadership work (Klein

et al., 2018). My findings support existing research by showing that teachers with 11 to 15 years of experience have had more time to align their views of teacher leadership with practices of teacher leadership (Wenner & Campbell, 2018), causing greater levels of teacher leadership identity than that of their novice peer teachers. Nevertheless, although novice teachers have to gradually develop as teacher leaders (Cheng & Szeto, 2016; Meirink et al., 2020), my findings align with previous research that shows they are ambitious and excited about opportunities to exercise leadership (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013).

Additionally, my qualitative significant results revealed that school location, school achievement levels, school leadership style, and school culture affect levels of TLI. These results connect to the work of Sinha and Hanuscin (2017), who found that school contextual factors, such as leadership opportunities, encouragement, and recognition, can affect teacher leadership development. My TLI findings also support current research that shows schools with high collegial cultures and increased communication between teachers and administrators better foster teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Fairman & Mackenzie, 2015; Klein et al., 2018; Lai & Cheung, 2015; Meirink et al., 2020; Muijs et al., 2013; Szeto & Cheng, 2018). Next, like Muijs et al. (2013), I found that school leaders committed to distributed leadership practices could more effectively foster novice teacher leadership in their schools. These results contribute to previous research that shows school cultures that promote formal and informal teacher leadership roles are critical for fostering teacher leadership development (Klein et al., 2018).

Another important finding in my research was the common misalignment between the school principals' perceptions of teacher leadership roles and that of their novice and experienced teachers. As a result, teacher participants' TLI was often not as high as it should have been compared to their engagements in leadership activities. School leaders often could not identify novice teacher leaders because they did not recognize what they were doing as teacher leadership tasks. This significant finding supports Sinha and Hanuscin's (2017) claim that a misalignment between leadership views and leadership practices can prevent teachers from developing their identities as teacher leaders. My findings also exemplify the importance of clear communication and relational support from school principals to foster novice teacher leadership development (Carver, 2016; Klein et al., 2018; Szeto & Cheng, 2018).

Next, my research shows that novice teachers can be teacher leaders (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013); however, only one novice teacher in my study identified as a formal teacher leader. Like Cosenza (2015), I found novice teacher participants believed there are numerous ways to participate in teacher leadership roles without having a formal appointment from a school or district leader. As discussed in previous research, my findings indicate novice teachers enter leadership roles informally within the classroom (Scales & Rogers, 2017; Sinha & Hanuscin, 2017). Also, many novice and experienced teachers consider informal teacher leadership more impactful than formal teacher leadership roles (Fairman & Mackenzie, 2015).

My findings revealed that novice teachers strongly consider collaboration and sharing instructional ideas and strategies as important examples of informal teacher leadership. For instance, NTD and NTB described their involvement in team planning,

hallway conversations, and bouncing ideas off peer teachers as important teacher leadership activities. However, administrators did not often discuss these activities as examples of teacher leadership. This finding supports Fairman and Mackenzie's (2015) claim that stakeholders must see teacher collaboration as leadership engagement to understand the extent of teacher leadership successfully. Additionally, these findings link to Kein et al.'s (2018) study that shows misalignment of teacher leadership definitions among stakeholders significantly impacts how teachers perceive their teacher leadership engagement.

TLI Based on Number of Schools

The next set of significant findings on TLI were revealed in a connection between teachers' years of experience and the number of schools they have taught at in their professional careers. In the quantitative phase of my research, I found that when combined, years of teaching and the number of schools taught at significantly affect teachers' identities as teacher leaders. There is a chance that the number of schools taught at could just reflect teachers' years of experience; however, only a moderate correlation was found among these variables during data analysis. These findings are important because there is currently no existing literature on how years of teaching and number of schools combined affect TLI. However, the significance of the number of schools that a teacher has taught at could connect to Sinha and Hanuscin's (2017) finding that exposure to new perspectives on leadership affects teacher leadership development. Also, my findings answer a call for further exploration of how teachers' ages or years of professional teaching experience affect their teacher leadership development (Carver,

2016; Klein et al., 2018) through a large-scale quantitative research study focusing specifically on novice teacher leadership (Szeto & Cheng, 2018).

First, in the quantitative phase of my research, I found that novice teachers' TLI was significantly affected by the number of schools they have taught at within their first 5 years of teaching. Specifically, novice teachers' identities as teacher leaders decreased as schools increased from two to four. However, novice teachers who had taught at two schools within 5 years of teaching had the highest level of TLI. My qualitative data strongly support these results since novice teachers with experience at more than one school displayed a better understanding of their teacher leadership roles. For example, NTA showed low levels of TLI and was moving to her second school the following year to seek more teacher leadership opportunities. NTB had high levels of TLI, was currently teaching at her second school, and was the only novice formal teacher leader participating in the study. Finally, NTD was at her third school, and although she had high levels of TLI, she had few opportunities for formal teacher leadership. She wanted to be on the school leadership team, but her principal explained these positions were already filled by experienced teachers who had been at the school longer.

Therefore, my results show that novice teachers have a greater chance of identifying as teacher leaders when they have taught at two schools within their first 5 years of teaching. This is important because there are currently no other empirical research studies that identify what point in a novice teacher's career allows for the greatest level of TLI and what number of schools provides the greatest chance of being a novice teacher leader. However, my findings can be linked to Carver's (2016) research that showed teachers develop as teacher leaders by gaining awareness of leadership

opportunities, broadening their views and definitions of teacher leadership, and embracing a teacher leadership identity. As novice teachers, switching to a second school within the first 5 years of teaching could provide opportunities that widen their views of teacher leadership and help them build confidence in identifying as teacher leaders. NTD provided an example of this when she described how experiences at her previous schools helped frame her perspective on teacher leadership and provided her with many leadership role models. Thus, these findings support Sinha and Hanuscin's (2017) model that shows identifying leadership role models and gaining new perspectives on leadership contributes to teacher leadership development.

The second finding associated with TLI and the number of schools was in the 6-to-10-year teacher group. Quantitative data analysis showed that teachers with 6 to 10 years of experience at only one school reported the highest levels of TLI of any other group. Conversely, these experienced teachers' TLI levels significantly decreased after teaching at two schools within those 6 to 10 years. My qualitative data support these findings since ETB left her first school after teaching there for 6 years and described many teacher leadership roles she had before moving. However, as a 7th-year teacher in her first year at School Site 2, she was not considered a formal teacher leader. Another connection in the qualitative phase came from Admin C, who specifically stated that she encourages teachers to change schools or positions after 6 years to grow as teacher leaders. Her perspective slightly contradicts the quantitative finding that two schools in a teacher's first 6 to 10 years of teaching decreases teacher leadership. However, Admin C seemed to be focusing on the long-term benefits of gaining more experience to be a more effective educational leader on a larger scale, such as for a school principal or district

leader position. Also, she mentioned changing grade levels to gain more experience, which could be within the same school.

These findings indicate that if we want to develop teacher leaders from a group of experienced educators, we need to encourage them to stay at one school for at least 6 to 10 years where they have the greatest chance of building their identity as teacher leaders. Scales and Rogers' (2017) research supports this claim, finding that teachers must first make themselves known at their schools to have increased teacher leadership opportunities and gain respect and acceptance from experienced peers. Also, Angelle and DeHart's (2016) research connects to my findings, explaining the critical roles that principal-teacher relationships play in effective teacher leadership. Thus, teachers who have been at a school for 6 to 10 years would have had ample time to build a strong relationship with their principals, providing them with an increased chance of developing as teacher leaders.

The third significant finding associated with teacher leadership identification and the number of schools showed that teachers with 11 to 15 years of experience gained higher levels of TLI as their number of schools increased from one to three. However, their TLI levels decreased when they taught at four schools. My qualitative results connect to these quantitative findings since ETD was in her 12th year of teaching with experience at three different schools and identified as a formal teacher leader. She was also considered a formal teacher leader by her principal and described her involvement in several school and district-level teacher leadership roles. At the same time, ETC was also a 12th-year veteran teacher but had only taught at one school. Although she engaged in

many of the same types of teacher leadership activities as ETD, she had lower levels of TLI and did not consider herself a formal teacher leader.

This finding suggests that we can better develop teacher leaders from more experienced teachers by encouraging them to teach at least three schools within their first 15 years of teaching. As mentioned earlier, more experienced teachers who have been in the classroom for 11 to 15 years have likely had time to align their views of teacher leadership with teacher leadership practices (Wenner & Campbell, 2018), which would increase their confidence to identify as teacher leaders. According to Carver (2016), "to overcome external and organizational obstacles to leadership, teachers may need to first perceive themselves as leaders capable of enacting change within and beyond their classroom" (p. 161). Thus, adding the factor of teaching at three different schools only enhances more experienced teachers' abilities to draw from previous teacher leadership roles to increase their TLI. In addition, they would possess years of knowledge gained from working as a highly effective classroom teacher, resulting in overall higher levels of teacher leadership development.

Finally, according to the quantitative data analysis results, after teaching for 16 or more years, the number of schools does not significantly affect TLI. This finding indicates that, for veteran teachers in the field for over 16 years, it does not matter how many schools they have taught at when it comes to whether they identify as teacher leaders. It seems clear that teachers with 16 or more years of experience would have the proper skills and knowledge base to perform in teacher leadership roles if they so choose, regardless of if they had taught at one to four schools. These teachers could encompass important attributes for effective teacher leadership, such as experience teaching,

experience in the classroom, experience teaching adults, and experience related to content knowledge (Jacobs et al., 2016).

Interestingly, my qualitative data showed that several teachers and administrators see teachers with close to or more than 20 years of experience shy away from teacher leadership roles. Admin A, Admin D, and ETC discussed a "sweet spot" for teacher leadership between novice teachers and "ultra-veteran" teachers, where teachers "naturally swell" into leadership roles. However, since the last teacher experience level group in my quantitative phase was lumped into a 16 or more years of experience range, I could not gain a clear understanding of how many teachers with more than 20 years are or are not identifying as teacher leaders.

Teacher Leadership Readiness (TLR)

Next, my mixed methods study results show that there is no significant difference in TLR levels based on years of professional teaching experience. In this section, my findings linked to TLR are discussed, revealing how various stakeholders perceive effective teacher leadership and how novice teachers, despite little classroom experience, could be ready for teacher leadership roles. Also, in this section, I discuss my significant finding that TLR levels within the teacher autonomy factor are affected by the type of program that a teacher uses to gain certification. However, this significant difference is not dependent on years of teaching experience. Again, I thoroughly explain how my quantitative and qualitative results collectively provide evidence for each finding and identify connections to current relevant literature with similar or contrasting results.

First, I found that the number of years a teacher has had in the field has no significant effect on whether he/she is ready to take on a teacher leadership role. This

finding is important because there are no current empirical research findings that provide quantitative evidence of how TLR levels are affected by years of experience. My qualitative case study data supported this important finding since nine out of 11 teacher and administrator participants claimed that novice teachers can take on teacher leadership roles, especially informal ones. The majority of the participants placed greater emphasis on a teacher's attitude, personality, and personal drive. They discussed teacher leaders as goal-oriented team players and individuals with the right attitude for leadership. Additionally, elementary teachers and school leaders noted the importance of effective communication skills, high levels of ethics and professionalism, and increased pedagogical knowledge when describing effective teacher leader characteristics. All four administrator participants addressed the importance of noticing leadership qualities in teachers and seeing who has inherent leadership skills that can be developed. Admins C and D also stressed how teacher leaders could work on the skills that need improvement, just like school leaders.

These qualitative findings are important because they link to previous empirical research describing effective teacher leaders' characteristics. For example, current research shows teachers' self-confidence in their teaching abilities and content knowledge increases their teacher leadership readiness (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020). Additionally, experts have found that being a good communicator is crucial for effective teacher leadership since communication between principals and teachers is one of the most important ways to increase teacher leadership in schools (Akert & Martin, 2012). In similar research, Jacobs et al. (2016) found the most critical characteristics of leadership include flexibility, ability to collaborate, being

supportive, and being a good communicator. Cosenza (2015) found that teachers perceive teacher leaders as role models who are professional and positive with students. Finally, Jacobs et al. found that effective teacher leaders must be well-organized, ethical, and life-long learners.

Although my case study participants described teaching experience as one of the necessary components of effective teacher leadership, there was disagreement about how much experience is needed. In my research, proponents of novice teacher leadership claimed that novice teachers should not be discounted as potential teacher leaders or denied leadership opportunities. This finding is significant because it contradicts previous research findings that showed novice teachers' lack of experience is seen by many teachers, administrators, and novice teachers themselves as a hindrance to their leadership involvement (Carver & Meier, 2013; Meirink et al., 2020; Muijs et al., 2013; Tahir et al., 2020). Oppositely, my finding supports the work of other researchers who found that all teachers can hold teacher leadership roles, regardless of their levels of teaching experience (Cosenza, 2015; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018).

I found that novice teachers are capable of teacher leadership because they are often excited professionals with good energy, positive attitudes, and drive to pursue more knowledge and try new ideas. This finding aligns with Cheng and Szeto's (2016) findings that novice teachers tend to be excited about opportunities to contribute to a school's success both inside and outside the classroom. Novice teachers can contribute to their teams with the latest instructional strategies and bring prior knowledge from their previous work, college, or student teaching experiences. They can also share effective lessons and activities from their own classrooms. These findings support previous

research that shows the ability and willingness to collaborate with peer teachers as a necessary characteristic for effective teacher leadership (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020).

Furthermore, my participants described that allowing novice teachers to engage in teacher leadership roles is critical for the leadership development process. They also explained that having more experienced teacher leaders serve as mentors for aspiring novice teacher leaders effectively fosters teacher leadership development in elementary public schools. These findings provide an important link to Sinha and Hanuscin's (2017) research that shows engagement in teacher leadership practices is an essential component of teacher leadership development. These results also support previous research findings that revealed teacher leaders gain more confidence in leadership abilities with the support of mentors (Angelle & DeHart, 2011; Klein et al., 2018). Finally, teachers serving as formal or informal mentors to aspiring novice teacher leaders have been found more effective than principals in offering instructional leadership (Cherian & Daniel, 2008).

In contrast, there were some opponents to novice teacher leadership in the qualitative phase of my research, consisting of the novice teacher and experienced teacher participants at School Site 3. Their perceptions align with previous researchers who found that early career teachers perceive their lack of experience as a source of their unreadiness for teacher leadership (Carver & Meier, 2013; Tahir et al., 2020). In my study, NTC and ETC explained that novice teachers are not ready for leadership roles until they have had at least 10 years of professional teaching experience, especially those who are young and entering the classroom straight from a college of education program. My qualitative TLI results also showed that many participants consider teaching

experience and pedagogical knowledge as components of effective teacher leadership. These findings link to my quantitative TLI results that showed teachers with 11 to 15 years of experience have greater levels of TLI than novice teachers. My combined findings support previous research that shows novice teachers' lack of experience can be seen by many teachers, administrators, and novice teachers themselves as a hindrance to their leadership involvement (Carver & Meier, 2013; Meirink et al., 2020; Muijs et al., 2013; Tahir et al., 2020).

Lastly, at School Site 3, both NTC and ETC perceived older teachers who enter the teaching profession from the workforce from alternative certification programs to have higher levels of teacher leadership readiness. They explained how older novice teachers could draw from previous work experiences outside the classroom. This finding connects to existing literature that shows teachers ready to take on leadership roles must be ready to take on extra responsibilities as educators (Jacobs et al., 2016; Scales & Rogers, 2017; Tahir et al., 2020). Although Admin C, too, mentioned the potential for leadership in teachers from alternative certification programs, she also described that some new teachers are destined for leadership positions. She claimed to have seen some novice teachers ready for teacher leadership or school leadership roles by their third years of teaching.

TLR Based on Type of Teaching Program

Although I found no significant difference in TLR based on years of experience, my quantitative results did show a significant difference in TLR levels within the teacher autonomy factor based on the type of teaching program. Yet, it must be maintained that

the significant effect that teaching programs had on TLR levels was not dependent on years of teaching experience.

The results from the quantitative phase showed that both teachers from a college of education and those from alternative certification programs had the most constant levels of TLR associated with teacher autonomy throughout the various experience levels. For these teachers, years of experience did not make a difference in whether or not they were ready to engage in teacher leadership activities. I could not connect to this finding in the qualitative phase of my study because I did not examine each teacher's readiness level across time. However, each novice and experienced teacher participant expressed interest in growing further as a teacher leader and gave specific formal teacher leadership roles that they planned to seek in the near future. In that respect, the qualitative data show that teachers in these program groups could likely increase their TLR levels as they continue their careers.

Additionally, my quantitative findings showed that teachers who graduate from a college of education teaching program have higher levels of TLR in the teacher autonomy factor than those from an alternative certification program. Although I could not find current empirical research that connected to these findings on readiness levels for teacher leadership, my qualitative data results support this finding. For example, all novice and experienced teachers in the case study who graduated from a college of education identified as teacher leaders and engaged in teacher leadership roles. NTA was the only teacher participant in the college of education program group who was not as confident in her teaching ability. She was very dependent on her informal mentor and seemed to lack the confidence of the other participants. Interestingly, she was also the

participant with the poorest relationship with her principal and was the only teacher who wanted to move schools. Therefore, this finding supports existing research that found principal facilitation a critical factor in teacher leadership engagement (Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013).

Next, I discovered in the quantitative phase that teachers from a Master of Arts in Teaching (MAT) alternative certification program are more prepared to take on teacher leadership roles associated with teacher autonomy than teachers from a college of education program (traditional) or a non-degree alternative certification program like iTeach. The study results showed that teachers with an MAT remained, for the most part, at the highest levels of readiness for teacher leadership among the teacher groups. I could not connect these findings with my case study results because I did not have any qualitative phase participants with an MAT degree.

Finally, my TLR quantitative data analysis results showed that teachers with an iTeach/Other certification have the lowest readiness levels associated with teacher autonomy among the teacher groups. This finding suggests that teachers who complete an iTeach/Other certification program are the least comfortable in taking ownership of their teaching and performing in these types of teacher leadership roles. The qualitative data both supported and contradicted this finding. The only participants in the case study who completed iTeach alternative certification programs were NTC and ETC. Although they were both engaging in teacher leadership roles, they had lower levels of TLI than they should have had when compared to their TLE levels. This could be due to the misalignment of teacher leadership definitions among participants at School Site 3. As mentioned previously, NTC and ETC feel that iTeach novice teachers, or those entering

the field from the workforce through an alternative certification program, are capable of teacher leadership roles. This finding aligns with Muijs et al.'s (2013) research that shows that novice teachers from an alternative certification program can make strong contributions in the form of informal teacher leadership. Additionally, Muijs et al. found that 2nd-year novice teachers with alternative certifications were perceived as ambitious and hard-working, and were described as "committed, enthusiastic, and intelligent" (p. 774).

Teacher Leadership Engagement (TLE)

I found a significant difference in teacher leadership engagement through my mixed methods research based on years of professional teaching experience. My findings linked to TLE are discussed in this section, revealing how teachers engage differently in teacher leadership roles depending on how long they have been teaching. Also, my additional TLE significant findings that show interactions between years of experience and other factors, including school location and number of schools taught at, are presented by category. The categories with significant TLE interactions include preservice teacher education, school change/improvement, school district/curriculum work, professional development of colleagues, and total TLE in all categories. I explain how my data support each finding and how my results connect to current relevant literature throughout this section.

First, I found through case study data analysis of four public elementary school novice teachers that they were all engaging in some form of teacher leadership. This result supports previous research findings that show novice teacher leaders are engaging in many informal leadership opportunities (Cheng & Szeto, 2016; Meirink et al., 2020;

Muijs et al., 2013; Scales & Rogers, 2017). However, throughout all school sites, there were no instances where the novice teacher and the principal completely agreed on the novice teacher's role as a teacher leader. Meirink et al. (2020) had similar results, finding a common misalignment between administrator and novice teachers' perceptions of their engagement in teacher leadership. In related research, Klein et al. (2018) found that alignment of teacher leadership definitions among stakeholders impacts teacher perceptions of leadership engagement.

Interestingly, all novice teacher participants were either currently seeking more leadership opportunities or had specific plans on how they hoped to grow as teacher leaders in the future. These results differed from Nolan and Palazzolo's (2011) study, where novice teachers were not actively seeking teacher leadership opportunities or working to increase their leadership skills. I also found that novice teacher participants described working at different schools as a significant factor that impacts their teacher leadership engagement; however, the school principals placed more emphasis on school and team dynamics as factors that affect novice teacher leadership opportunities. This finding strongly aligns with the work of Cheng and Szeto (2016). They found that "the development of teacher leadership is indeed contextual throughout this section, and depends on teachers' willingness and the specific school culture in which individual teacher's area" (p. 147).

More case study findings linked to novice TLE included the factor of acceptance and support. I found that years of experience does affect how novice teachers are accepted as teacher leaders and that it takes time for novice teachers to build confidence in their leadership abilities. In the case study, all but one novice teacher participant

claimed to be accepted as teacher leaders in their schools. Yet, some experienced teachers described that, in the past, school cultures were not as accepting of beginning teachers engaging in leadership roles. This finding connects to Klein et al.'s (2018) research that shows school cultures that embrace formal and informal teacher leadership roles are vital to promoting teacher leadership development.

My results show that experienced peer teachers and school principals consider informal teacher leadership as the most appropriate and accepted leadership role for novice teachers. My results contribute to the findings of experts in the field who claim that novice teachers are engaging in informal leadership roles (Cheng & Szeto, 2016; Meirink et al., 2020; Muijs et al., 2013). Additionally, novice teachers working in informal leadership roles are significant because some teachers perceive informal teacher leadership as more impactful on teaching and learning than formal teacher leadership roles (Fairman & Mackenzie, 2015).

I also found that administrator and peer support are critical factors that affect novice teacher leadership development and engagement. Several participants discussed how negative support as novice teacher leaders caused them to either change schools and districts or strongly consider it. Scales and Rogers (2017) had similar findings in that novice teachers' abilities to demonstrate teacher leadership was impacted by school context and perceptions of others. Most novice teacher participants reported great support from their peer teachers; yet, some of them described more support from fellow novice teachers rather than more experienced or veteran teachers. This result connects to Carver and Meier's (2013) research findings that novice teachers had trouble being accepted as leaders by their more experienced peers. Additionally, existing empirical research shows

support from peer teachers is necessary for effective teacher leadership (Carver & Meier, 2013; Jacobs et al., 2016; Tahir et al., 2020).

While many novice teachers in my study reported excellent support from their school principals, some desired more feedback and suggestions for continued growth. This result links to Fairman and Mackenzie's (2012) findings that school leaders should account for teachers' varying levels of teacher leadership readiness by offering encouragement. In related research, Szeto and Cheng (2018) found that the most supportive principals for novice teacher leadership provide professional development opportunities and encouragement to build their leadership capacities. According to Szeto and Cheng, a principal's regular and constructive communication with beginning teachers is crucial for identifying potential leaders and encouraging their leadership development.

Throughout the qualitative phase of my research, administrators and teachers frequently commented about the global pandemic's impact on teacher leadership in their schools and districts. I found that novice teachers today have taught more years in a pandemic than not, which is affecting their development as teacher leaders. School principals in the current study complained of limited opportunities for teacher leadership due to no sports team activities, club meetings, school events, parent/community involvement projects, etc. Similarly, novice and experienced teachers discussed the lack of teacher leadership roles due to COVID-19 and how teacher leadership roles they used to engage in were either put on hold or gone indefinitely. Although there is currently no empirical research on the effects of global catastrophes on novice teacher leadership development, researchers in the field have found that novice teachers are typically not offered as many leadership opportunities as they would like (Nolan & Palazzolo, 2011).

Therefore, it could be argued that the pandemic has only added to the problem of novice teachers having fewer opportunities for teacher leadership than they would prefer.

TLE in Preservice Teacher Education

My significant quantitative results showed that teachers with 16 or more years of experience engage in more teacher leadership roles relating to preservice teacher education than teachers with 6 to 10 years of experience. This finding suggests that veteran teachers are more likely to participate in leadership activities connected to training preservice teachers, such as getting a student teacher, than experienced teachers of just 6 to 10 years. No significant findings from the qualitative data support or contradict this finding. Teachers with 16 or more years of experience were not included in the case study. Therefore, no evidence was collected to support that they have more TLE in preservice teacher education. Nonetheless, teacher and administrator participants commented that teachers with 20 or more years of experience tend to shy away from teacher leadership roles.

I found no current empirical research with additional significant findings that linked years of experience with levels of teacher leadership engagement in preservice teacher education. However, department of education policies from the southern US state included in this study require preservice teacher mentors to complete an extensive training and certification process. To receive a formal mentor teacher endorsement through the state, aspiring teacher leaders must complete training to learn how to build relationships with preservice teachers and identify and address their needs as developing educators. Furthermore, teachers training for mentorship certification must prove their abilities to effectively coach preservice teachers by providing resources for their

development and tracking their progress. Perhaps more years of teaching experience could make this formal mentor teacher certification process easier to complete. Therefore, state certification requirements add support to my findings that teachers with 16 or more years of experience engage in more teacher leadership roles relating to preservice teacher education than teachers with 6 to 10 years of experience.

TLE in School Change/Improvement

Next, my quantitative results show that, when combined, years of teaching and school location significantly affect how teachers engage in leadership activities associated with school change/improvement. This finding suggests that administrators rely differently on the various teacher groups for teacher leadership roles depending on the school's location. My results show urban districts have novice teachers with veterans engaging in leadership roles linked to the school change/improvement category. In contrast, suburban and rural schools rely more on veteran teachers for these extra responsibilities. With novice teacher participants from urban, suburban, and rural public schools, I collected qualitative data connected to these findings. My significant qualitative results showed that novice teachers have varying levels of engagement in teacher leadership roles pertaining to school change and improvement, depending on school location.

For example, NTB was the only novice teacher participant engaging and identifying as a formal teacher leader. She and her principal described her work with school and district leadership teams to increase student achievement on a large scale. NTB was also the only novice teacher teaching at an urban school and discussed difficulties with high teacher turnover rates. She explained how student demographics

and the economic status of the school families significantly impacts how teacher leaders are developed and engaged at School Site 2. This result supports my finding that beginning and veteran teachers are engaging in more school improvement teacher leadership roles because those experience level groups could make up the majority of the faculty.

On the other hand, NTD, who teaches at a suburban elementary school, cannot work in these types of teacher leadership roles because they are already filled with experienced teachers who have been at the school longer. This finding supports my quantitative conclusion that, at suburban schools, teachers with 11 to 15 years of experience have the highest levels of TLE in school change/improvement. Admin D explained that teachers like ETD, who has 12 years of experience, have earned trust with such important responsibilities and typically stay in those positions for at least a few years, especially since the pandemic began.

Overall, this significant finding suggests that each district encourages leadership differently when enacting school change or improvement through teacher leadership. This relates to research conducted by Muijs et al. (2013), who found that most of their experienced teacher participants felt that novice teachers lacked the experience needed to engage in school improvement initiatives. However, they also found that in schools where less experienced teachers make up the majority of the staff, novice teachers must be involved in leadership positions (Muijs et al., 2013).

The next significant finding associated with school change/improvement was a combined effect with years of experience and number of schools taught at. According to my quantitative results, when combined, years of teaching and number of schools'

teachers have taught at significantly affect how teachers engage in leadership activities associated with school change/improvement. There is no current research that I could find connecting teacher leadership engagement or novice teacher leadership to the number of schools taught at.

However, my results also show the highest levels of TLE in activities relating to school change/improvement belong to teachers in the 6 to 10 years of experience range who have taught at only one school. That level decreased dramatically when the 6-to-10-year teachers taught at two schools. The qualitative data support this finding since ETB was active in school and district leadership roles at her first school after 6 years but had no formal leadership roles in her 7th year at a new school. This links to Klein et al.'s (2018) recent research that shows teacher leadership is most successful when the interests of teacher leaders align with the vision of the school or district. Teachers at one school for 6 to 10 years would likely have a stronger connection to the school's goals than those, like ETB, who switched schools within that time period.

Novice teachers' teacher leadership engagement in this category increased as the number of schools increased to three but dramatically decreased when working at four different schools. Although I did not have a novice teacher participant in the qualitative phase with experience at four or more schools, NTD was at her third school with limited opportunities for teacher leadership associated with school improvement. Therefore, the qualitative findings did not align with the quantitative results. For teachers with 11 to 15 years of experience, as the number of schools increased, so did levels of TLE relating to school change/improvement. The qualitative data supported this finding since ETD has more schools and higher levels of teacher leadership engagement than ETC. Finally, the

number of schools a teacher has taught at does not impact TLE for teachers with 16 or more years of experience.

TLE in School/District Curriculum Work

I found that, when combined, years of experience and number of schools affects TLE linked to school/district curriculum work. The quantitative results showed that novice teachers who have taught at three or four different schools are not engaging in school/district curriculum work activities. This finding suggests that novice teachers who change schools too frequently may not have time to gain trust or build relationships with administrators and district leaders. As a result, school and district leaders may not feel comfortable putting these seemingly transient novice teachers in charge of curriculum leadership work in their school system.

This finding is supported by the case study results that show NTD was not being asked to do formal teacher leadership roles at her third school but placed great emphasis on her work as an informal leader. At the same time, NTA claimed she was working on curriculum materials for her team and had only taught at one school. Also, NTB had taught at two schools, was working directly with her instructional coach, and was responsible for curriculum work. These results relate to previous empirical research that shows novice teachers tend to better identify with teacher leadership roles relating to curriculum level decision-making instead of organizational level decision-making (Nolan & Palazzolo, 2011; Szeto & Cheng, 2018).

Another interesting finding in the school/district curriculum work TLE category is that the highest levels of engagement belonged to teachers with 6 to 10 years of experience who have only taught at one school. This finding shows that teachers who

stay at the same school for their 6 to 10 years of teaching are being provided with more opportunities to engage in teacher leadership roles than their less or more experienced counterparts. These findings suggest that school and district leaders choose committed teachers leaders, or those who have remained in the same district throughout their careers, to engage in curriculum work. An example of this was seen at School Site 1. Before coming in as a new school leader, Admin A asked the previous principal which teachers she perceived as potential team leaders for each grade level. She was looking for experienced teachers who could be trusted with teacher leadership roles. Again, School Site 4 also showed examples of using experienced teachers for formal leadership work with curriculum.

TLE in Professional Development of Colleagues

My next significant quantitative result showed that, when combined, years of teaching and the number of schools teachers have taught at significantly affects how they engage in leadership activities associated with the professional development of colleagues. I found that teachers with 6 to 10 years of experience at only one school reported the highest levels of TLE relating to the professional development of colleagues. By contrast, novice teachers with experience from four schools reported the lowest levels of TLE in this category. As seen before, these findings suggest that teachers remaining at the same school throughout the novice teaching phase are being provided with more opportunities to engage in teacher leadership roles once they enter the experienced teacher phase. Furthermore, moving novice teachers around to many schools early in their careers dramatically decreases their chances of engaging in teacher leadership roles. This could be because they have fewer opportunities to build relationships and establish

trust with school leaders. These results connect to existing research that shows school administrator support can significantly increase teacher leadership development (Carver, 2016; Cheng & Szeto, 2016; Lai & Cheung, 2015; Muijs et al., 2013; Nolan & Palazzolo, 2011; Szeto & Cheng, 2018).

Interestingly, my quantitative findings suggest that for a novice teacher, teaching at two schools provides the most opportunities to engage in leadership roles associated with the professional development of colleagues. My qualitative findings support this result since NTD thoroughly discussed how she seeks professional development opportunities on her own and regularly brings the information back to her school and team. However, I could not find any current research that found novice teacher leaders engaging in teacher leadership roles associated with the professional development of colleagues.

Finally, for all teachers who taught at four schools, their levels of TLE relating to the professional development of colleagues increased with their years of experience until they reached 16 or more years. Overall, teachers with 11 to 15 years of experience seem to benefit from working at more schools in their careers when it comes to engaging in the professional development of colleagues. Again, this finding aligns with the results from my TLI data analysis. The qualitative results also support this finding because ETD had experience at three schools and was actively engaging with training teachers at the school and district level in curriculum and instructional strategy workshops.

Total TLE in All Categories

The last significant finding from my research study is that, when combined, years of experience and the number of schools teachers have taught at significantly affect how

teachers engage in teacher leadership across all TLE categories combined. My quantitative findings from all TLE categories combined clearly showed that teachers with 6 to 10 years of experience who have taught at only one school have by far the highest levels of TLE. In other words, I found that teachers who remain at the same school for 6 to 10 years are being provided with more teacher leadership opportunities than any other experience level group. The qualitative data neither supported nor contradicted this finding because I had no experienced teachers in this group who had taught at only one school. However, this finding combined with my TLI and TLR findings strongly supports Sinha and Hanuscin's (2017) proposition that teacher leadership occurs when views of leadership, engagement in leadership practices, and development of leadership identity are in alignment. Again, teachers with more years of experience have likely had more time to align their views of teacher leadership with practices of teacher leadership (Wenner & Campbell, 2018), leading to greater levels of teacher leadership development.

Lastly, results from this category revealed that novice teachers have the most TLE opportunities when they have taught at two different schools and the least opportunities when having taught at four schools. The qualitative data analysis results support this finding since NTB, a formal novice teacher leader with experience teaching at two schools, had the highest levels of TLE among the novice teacher participants. My results from combining all TLE categories also confirmed that teachers with 11 to 15 years of experience engage in more teacher leadership activities overall as they increase their number of schools up to four. Here again, these findings support previous research that shows teacher leaders develop when they have had time to gain experience and increase

their perceptions of teacher leadership, and are provided with teacher leadership engagement opportunities (Sinha & Hanuscin, 2017; Wenner & Campbell, 2018).

Implications and Recommendations

In this section, implications and recommendations are presented based on my significant findings on novice teacher leadership development and engagement. With support from existing empirical research, the results from my research study indicate necessary action to increase novice teachers' development as teacher leaders and opportunities for engagement in teacher leadership roles. These implications and recommendations are addressed to novice teachers, public school and district leaders, and administrators and instructors of teacher preparation programs. Recommendations for future research are also provided based on my significant findings and the current state of the research field on novice teacher leadership.

Novice Teachers

The implications and recommendations for novice teachers include adopting and exhibiting effective teacher leadership qualities and characteristics and positioning themselves for enhanced leadership development by carefully planning the number of schools they will teach at.

According to my research, novice teachers who aim for future leadership roles should consider the necessary traits and characteristics for effective leadership. Novice teachers must be helpful, reliable, and portray positive attitudes to be effective teacher leaders. They must also focus on their teams' success and continually seek professional growth. To be a teacher leader, novice teachers must plan to be self-motivated, and display effective communication skills. Additionally, aspiring novice teacher leaders

should exhibit professionalism and an ethical code of conduct both inside and outside the classroom.

Finally, novice teachers who aspire to take on teacher leadership roles should plan to teach at two different schools within their first 5 years of teaching. However, novice teachers must refrain from teaching at three or more schools within their first 5 years, which can negatively affect their ability to identify as teacher leaders. Novice teachers with experience at more than one school could have increased leadership potential with new strategies and instructional ideas to offer their grade-level, content, or school teams.

Public School and District Leaders

I also have recommendations for public school and district leaders based on my results. First, I propose that school districts increase teacher leadership development by encouraging teachers to move around to different schools within the district after 10 years of teaching. However, all stakeholders must understand that moving novice teachers around to multiple schools during the first 5 years of their careers is a sure way to eliminate their opportunities for teacher leadership.

Next, educational leaders must adopt a distributed leadership style and focus on creating and maintaining a positive and collaborative school culture to increase novice teacher leadership development in schools. Solid mentorship programs and opportunities for informal and formal teacher leadership are vital to building effective novice teacher leaders and future experienced teacher leaders. School and district leaders must promote the value of novice teacher leadership and support beginning teachers to align their perceptions of teacher leadership with engagement in informal leadership roles.

Another critical factor that principals and district leaders must attend to is effectively communicating opportunities for leadership and processes for becoming an informal and formal teacher leader. School and district leaders must be educated on teacher leadership roles and promote teacher leadership by clearly communicating how these roles, titles, and responsibilities are distributed on their campuses. Also, principals must identify potential novice teacher leaders by looking for inherent leadership qualities and examining their previous experiences with leadership. School leaders should build capacity in novice teachers by providing transparency in the opportunities for teacher leadership and the processes for filling these positions. These measures can help alleviate negative support from experienced and veteran teachers when novice teachers are placed in teacher leadership roles.

Finally, consistent feedback and encouragement are necessary to encourage novice teacher leadership growth and improvement. Without this critical component, novice teachers are more likely to seek teaching positions at other schools and districts that better promote novice teacher leadership. Today's advanced technological society allows novice teachers to easily communicate with teachers from all over the world. They can compare opportunities for novice teacher leadership, acceptance levels for novice teacher leaders, and levels of collaboration and collegial support for novice teacher leaders at different schools. Therefore, to keep future teacher leaders in their schools, principals and district leaders must ensure that novice teacher leaders' developmental needs are being met.

Teacher Preparation Program Administrators and Instructors

Based on my results, there are also implications and recommendations for administrators and instructors of teacher preparation programs. To increase novice teacher leadership development, connections must be built and maintained between higher education institutions and surrounding public school systems. Teacher leadership programs should be established that spread awareness of the steps to becoming a certified teacher leader through the state department of education. Preservice teacher educators should provide undergraduate education students with opportunities to learn about teacher leadership and take early steps to begin their development as aspiring educational leaders. Instructors of teacher education programs should inform preservice teachers interested in novice teacher leadership of the necessary characteristics for effective leadership. Information should also be provided on how teaching at two schools within the first 5 years of an educator's career can increase teacher leadership development for novice teachers.

Further Research

Since the field of research on novice teacher leadership is still limited, there remains a need to explore further how beginning teachers are developing and engaging in leadership roles in various school contexts. My significant findings on factors that affect novice teacher leadership should be further investigated through additional quantitative and qualitative studies. Specifically, additional research is needed that focuses on how significant factors, such as school location, type of teaching program, and number of schools, affect novice teacher leadership. However, researchers interested in conducting research similar this study should consider adding a fifth experience level group of

teachers with 20 or more years of teaching experience since my qualitative results indicated a significant difference in their levels of TLI and TLE.

Additionally, future teacher leadership researchers should explore how school and team dynamics, such as number of grade levels at a school and number of members on a grade level or content area team, promote or prohibit novice teacher leadership development and engagement. Further research is also needed to determine how unpredictable forces of nature or global catastrophes, such as COVID-19, affect novice teacher leadership development and engagement.

A mixed methods research design proved to be an effective way to investigate this important teacher leadership topic. Future researchers should therefore consider this method when exploring novice teacher leadership. Additional large scale quantitative research studies are also needed on the topic of teacher leadership development. Since I found levels of distributive leadership have significant effects on how novice teachers identify as teacher leaders and engage in formal and informal teacher leadership roles, additional novice teacher leadership studies that appoint distributive leadership theory as a theoretical framework are needed. Furthermore, the Teacher Leadership Development Process Model (Sinha & Hanuscin, 2017) proved an effective conceptual framework for studying how novice teachers develop as teacher leaders. For this reason, the Teacher Leadership Development Model (Sinha & Hanuscin, 2017) should be considered as a conceptual lens for future research that focuses on how teachers with various experience levels, teaching certifications, and degrees are developing as teacher leaders.

Conclusion

After decades of empirical research on the teacher leadership phenomenon (Wenner & Campbell, 2017; York-Barr & Duke, 2004), the literature on novice teachers' development as teacher leaders is limited (Carver, 2016; Cheng & Szeto, 2016; Cosenza, 2015; Meirink et al., 2020; Scales & Rogers, 2017; Szeto & Cheng, 2018; Tahir et al., 2020). Scholars who have conducted recent empirical teacher leadership research agree that further studies are needed on novice teacher leadership from the perspectives of novice teachers (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017), as well as what school contexts foster novice teacher leadership development (Lai & Cheung, 2015; Scales & Rogers, 2017). This research study was conducted to address the gap in the literature on novice teacher leadership development from novice teachers' perspectives (Carver & Meier, 2013; Cheng & Szeto, 2016; Scales & Rogers, 2017). I sought to identify the differences that may or may not exist between southern US public elementary school novice teachers' years of professional teaching experience and their perceptions of teacher leadership, their readiness for teacher leadership, and their engagement in informal and formal teacher leadership roles.

From my research, I found several significant findings on how years of experience affects novice teacher leadership development and engagement. First, the results of my study show that there is a difference in teacher leadership identification based on years of experience. I found that elementary public school teachers with 11 to 15 years of experience are identifying more as teacher leaders than those with 0 to 5 years of experience. I also found that when combined, years of teaching and the number of schools taught at affects teachers' identities as teacher leaders. Next, I discovered no

significant difference in teacher leadership readiness levels based on years of professional teaching experience. My results also show that TLR levels within the teacher autonomy factor are affected by the type of program a teacher gains their certification. However, this significant difference is not dependent on years of teaching experience. Last, my findings revealed a significant difference in teacher leadership engagement based on years of professional teaching experience. I found that, when combined, years of experience and school location, and years of experience and number of schools taught at, significantly affect TLE. The categories with significant TLE interactions include preservice teacher education, school change/improvement, school district/curriculum work, professional development of colleagues, and total TLE in all categories.

Overall, my findings provide significant results on novice teacher leadership from the perspective of novice teachers and what school contexts foster novice teacher leadership development. My study also provides how experienced peer teachers and administrators perceive novice teacher leadership in schools and districts. My results add to the research that shows how age or years of professional teaching experience affects teacher leadership development. Finally, this study provides new evidence supporting the equal distribution of teacher leadership roles, leading to increased leadership opportunities for teachers with less professional teaching experience.

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APPENDIX A

TEACHER LEADERSHIP READINESS INSTRUMENT

Table A.1

Teacher Leadership Readiness Instrument (Katzenmeyer & Moller, 2009)

Assessing Your Readiness for

Teacher Leadership

Respond to the following statements in terms of how strongly you agree or disagree	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
1. My work as a teacher is both meaningful and important.					
2. Individual teachers should be able to influence how other teachers think about, plan for, and conduct their work with students.					
3. Teachers should be recognized for trying new teaching strategies whether they succeed or fail.					
4. Teachers should decide on the best methods of meeting educational goals set by policymaking groups (e.g., school boards, state departments of education).					
5. I am willing to observe and provide feedback to fellow teachers.					
6. I would like to spend time discussing my values and beliefs about teaching with my colleagues.					
7. It is important to me to have the respect of the administrators and other teachers at my school.					

Table A.2

Teacher Leadership Readiness Instrument (Katzenmeyer & Moller, 2009)

Respond to the following statements in terms of how strongly you agree or disagree	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
8. I would be willing to help a colleague who was having difficulty with his or her teaching.					
9. I can see the points of view of my colleagues, parents, and students.					
10. I would give my time to help select new faculty members for my school.					
11. I try to work as a facilitator of the work of students in my classroom and of colleagues in meetings at my school.					
12. Teachers working collaboratively should be able to influence practice in their schools.					
13. I can continue to serve as a classroom teacher and become a leader in my school.					
14. Cooperating with my colleagues is more important than competing with them.					
15. I would give my time to help plan professional development activities at my school.					
16. My work contributes to the overall success of our school program.					

Table A.3

Teacher Leadership Readiness Instrument (Katzenmeyer & Moller, 2009)

Respond to the following statements in terms of how strongly you agree or disagree	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
17. Mentoring new teachers is part of my responsibility as a professional teacher.					
18. School faculty and university faculty can mutually benefit from working together.					
19. I would be willing to give my time to participate in making decisions about such things as instructional materials, allocation of resources, student assignments, and organization of the school day.					
20. I value time spent working with my colleagues on curriculum and instructional matters.					
21. I am very effective in working with almost all of my colleagues.					
22. I have knowledge, information, and skills that can help students be successful.					
23. I recognize and value points of view that are different from mine.					
24. I am very effective in working with almost all of my students.					
25. I want to work in an environment where I am recognized and valued as a professional.					

APPENDIX B

INTERVIEW PROTOCOLS

Novice Teacher Interview Protocol:
Perceptions of & Engagement in Teacher Leadership Roles

1) What does teacher leadership mean to you?

2) What do you consider to be formal and informal teacher leadership roles? What do these roles mean to you?

3) How do you see teachers engaging in teacher leadership roles in your school? District?

4) Do you consider yourself a teacher leader? Why or Why not? If not, is that something of interest to you?

5) In what ways are you a leader in your classroom, grade level, school, district, or community? What opportunities to practice leadership have you had?

6) Do you think a teacher's years of professional teaching experience affects their involvement in teacher leadership roles? Does it affect how they are accepted as teacher leaders by their peer teachers or school leaders?

7) Do you have any role models of leadership? Why do you consider them to be leadership role models?

8) Do you receive feedback, recognition, or encouragement from your teaching peers? What about from your administrators?

Experienced Teacher Interview Protocol:
Perceptions of Novice Teacher Leadership Engagement

1) What does teacher leadership mean to you?

2) What do you consider to be formal and informal teacher leadership roles? What do these roles mean to you?

3) Do you consider yourself a teacher leader? In what ways do you engage in leadership in your classroom, grade level, school, district, or community?

4) Do you think novice teachers can participate in teacher leadership roles? How do you see novice teachers engaging in teacher leadership roles in your school? District?

5) Do you think a teacher's years of professional teaching experience affects their involvement in teacher leadership roles? Does it affect how they are accepted as teacher leaders by their peer teachers or school leaders?

6) What school contexts or factors do you feel are the most important for encouraging or fostering novice teacher leadership?

Administrator Interview Protocol:
Perceptions of Novice Teacher Leadership Engagement

1) What does teacher leadership mean to you?

2) What do you consider to be formal and informal teacher leadership roles? What do these roles mean to you?

3) Do you have teacher leaders at your school? How do you see your teachers engage in leadership in their classrooms, grade levels, school, district, or community?

4) Do you think novice teachers can participate in teacher leadership roles? How do you see novice teachers engaging in teacher leadership roles in your school? District?

5) Do you think a teacher's years of professional teaching experience affects their involvement in teacher leadership roles? Does it affect how they are accepted as teacher leaders by their peer teachers or school leaders?

6) What school contexts or factors do you feel are the most important for encouraging or fostering novice teacher leadership?

APPENDIX C

FINAL FOUR FACTORS OF THE TLR INSTRUMENT

Table C.1

Final Four Factors of the TLR Instrument

TLR item	Factor loading			
	1	2	3	4
Factor 1: Self efficacy and value as a teacher				
24. I am very effective in working with almost all of my students.	.767			
22. I have knowledge, information, and skills that can help students are successful.	.752			
23. I recognize and value points of view that are different from mine.	.729			
25. I want to work in an environment where I am recognized and valued as a professional.	.669			
21. I am very effective in working with almost all of my colleagues.	.633			
16. My work contributes to the overall success of our school program.	.618			
14. Cooperating with my colleagues is more important than competing with them.	.596			
8. I would be willing to help a colleague who was having difficulty with his or her teaching.	.583			
7. It is important to me to have respect of the administrators and other teachers at my school.	.450			
Factor 2: Willingness to take on school leadership responsibilities				
10. I can give my time to help select new faculty members for my school.		.780		

Table C.2

Final Four Factors of the TLR Instrument

TLR item	Factor loading			
	1	2	3	4
11. I try to work as a facilitator of the work of students in my classroom and of colleagues in meetings at my school.		.621		
19. I would be willing to give my time to participate in making decisions about such things as instructional materials, allocation of resources, student assignments, and organization of the school day.		.572		
13. I can continue to serve as a classroom teacher and become a leader in my school.		.542		
5. I am willing to observe and provide feedback to fellow teachers.		.518		
9. I can see the points of view of my colleagues, parents, and students.		.508		
Factor 3: Teacher autonomy beliefs				
3. Teachers should be recognized for trying new teaching strategies whether they succeed or fail.			.647	
2. Individual teachers should be able to influence how other teachers think about, plan for, and conduct work with their students.			.632	
12. Teachers working collaboratively should be able to influence practice in their schools.			.560	
4. Teachers should decide on the best methods of meeting educational goals set by policy groups (e.g., school boards, state departments of education).			.542	
1. My work as a teacher is both meaningful and important.			.537	

Table C.3

Final Four Factors of the TLR Instrument

TLR item	Factor loading			
	1	2	3	4
Factor 4: Willingness to help other teachers				
17. Mentoring new teachers is part of my responsibility as a professional teacher.				.631
18. School faculty and university faculty can mutually benefit from working together.				.615
15. I would give my time to help plan professional development activities in my school.				.598
6. I would like to spend time discussing my values and beliefs about teaching with my colleagues.				.510
20. I value my time spent working with my colleagues on curriculum and instructional matters.				.485

APPENDIX D

HUMAN USE APPROVAL LETTER

LOUISIANA TECH
UNIVERSITY

EXEMPTION MEMORANDUM

OFFICE OF SPONSORED PROJECTS

TO: Ms. Miranda Allen and Dr. Richard Shrubb

FROM: Dr. Richard Kordal, Director of Intellectual Properties
rkordal@latech.edu

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: March 22, 2021

TITLE: "Novice Teachers as Teacher Leaders: A Mixed Methods Study of Years of Experience and Teacher Leadership Development"

NUMBER: HUC 21-076

According to the Code of Federal Regulations Title 45 Part 46, your research protocol is determined to be exempt from full review under the following exemption category(s):
46.104 (d) (2) (i)

"Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

(i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

(ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or

(iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by § 46.111(a)(7)."

Thank you for submitting your Human Use Proposal to Louisiana Tech's Institutional Review Board.

APPENDIX E

QUANTITATIVE PHASE PARTICIPANT DATA

Table E.1

Demographics

Demographic	Options and Frequencies			
Gender	Male	Female	Non-Binary	Prefer not to say
	10	294	0	2

Table E.2

Educational Status

Education	Options and Frequencies						
Highest Education Obtained	Associate's	Bachelor's	Master's	Master's +30	Master's +45	Specialist	PhD/EdD	Other
	1	173	96	17	8	2	4	5

Table E.3

Teacher Certification Programs

Certification	Options and Frequencies				
Teacher Certification Program	College of Education Teaching Program	Alternative Certification Program	iTeach Certification Program	MAT Degree	Other
	196	62	12	22	14

Table E.4

Preservice Teacher Experiences

Experiences	Options and Frequencies	
Participation in Teacher Observations or Clinical Field Experiences	Yes	No
	282	24

Table E.5

School Location

Geographics	Options and Frequencies		
School Geographic Location	Rural	Urban	Suburban
	90	80	136

Table E.6

Teaching Experiences

Teaching Experience	Options and Frequencies			
	1	2	3	4 or more
Number of Schools Taught At	62	90	65	89
Number of Grades Taught	45	76	69	116