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Peer-to-Peer Feedback: An Instructional Strategy in Teacher Evaluation

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PEER-TO-PEER FEEDBACK: AN INSTRUCTIONAL STRATEGY IN TEACHER EVALUATION

by

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ABSTRACT

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Teacher evaluation continues to be affected by several of the federal movements of the past 2 decades. These laws call for higher accountability from principals to improve instruction in their buildings. Most principals use teacher observations as part of their teacher supervision and evaluative practices and in their roles as instructional leaders. One of the challenges which principals face is the lack of time to do all they feel they need to do. Peer-to-peer feedback is a strategy to assist principals in their roles as instructional leaders. This dissertation is a multi-case qualitative case study of peer-to-peer feedback as it has been practiced in two elementary schools. Social cognitive theory, with a focus on teacher efficacy, is the theoretical framework that guided this research. Ample research has found that teachers who have higher levels of teacher efficacy have higher student outcomes. Thus, the purpose of this study was to understand how teacher efficacy is informed by peer-to-peer feedback and the factors which contribute to those results. This study used semistructured interviews, focus groups, and journal responses to gather data. Case 1 had three participants and Case 2 had six participants. Individual case

analysis and cross-case analysis were conducted. The results of this study provide evidence that teacher efficacy is informed positively by peer-to-peer feedback. Teacher support, improved teaching, and more joy were the shared factors among the two cases in this multi-case study. This research adds additional data to a relatively small pool of scholarship in peer-to-peer feedback and calls for further research to be done.

(152 pages)

PUBLIC ABSTRACT

Peer-to-Peer Feedback: An Instructional Strategy in Teacher Evaluation

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Over the last several decades there have been federal movements in education which place more accountability on schools and consequently their principals. Principals have many responsibilities which vary from administrative duties to improving teaching in their schools. As a result, principals are often asked to do more than they believe they have time to accomplish. Peer-to-peer feedback is a practice that principals can use to help evaluate, and more importantly, help teachers improve their teachers' teaching. This multi-case or multi-school qualitative study researched the practice of peer-to-peer feedback at two elementary schools. The purpose was to understand how peer-to-peer feedback informs teacher efficacy, or a teachers' self-beliefs to be successful, and the factors which are contributing to those self-beliefs. Interviews, focus groups, and journal responses were used to gather data from participating teachers and the principals. In Case 1 there were three participants, and in Case 2 there were six participants. Both cases or schools have evidence to suggest that teacher efficacy is informed positively by peer-to-peer feedback. The shared factors between the two schools were support, improved teaching, and more joy. This provides more data that peer-to-peer feedback can be used in the future to inform teacher efficacy positively, and also highlights the need to do more research in this field.

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CHAPTER I

INTRODUCTION

The academic success of students critically depends on the quality of teacher pedagogy (Babo & Ramaswami, 2011; Darling-Hammond, 2000). Thus, it becomes increasingly important to understand what strategies can be applied to help teachers improve instruction in addition to their ever-increasing duties as educators. Currently, principals carry the burden of being teacher evaluators and instructional leaders in their schools. As part of this role, most principals believe that teacher observations and feedback is central to their responsibilities (Vogel, 2018). Unfortunately, although most principals see this as their role, principals struggle finding the time to give meaningful feedback to their teachers to improve instruction (Donaldson & Woulfin, 2018; Kraft & Gilmour, 2016; Stecher et al., 2018). Peer-to-peer feedback is a practice principals can use with their teachers to improve their instruction and help them in their roles as instructional leaders. Peer-to-peer feedback has a broad definition that includes many different activities between peers or teachers. The definition used in this study comes from Robbins (2015):

> …a powerful, confidential, non-evaluative process through which two or more colleagues work together to: reflect upon and analyze teaching practices and their consequences; develop and articulate curriculum, create informal assessments to measure student learning; implement new instructional strategies, including the integrated use of technology; plan lessons collaboratively; discuss student assessment data and plan for future learning experiences; expand, refine, and build new skills; share ideas and resources; teach one another; conduct classroom research; solve classroom problems or address workplace challenges; and examine and study student learning with the goal of improving professional practice to maximize student success. (p. 9)

In a recent review of the literature, Ridge and Lavigne (2020) found that there are many encouraging aspects of peer-to-peer feedback, with teacher collaboration being the most cited positive consequence of implementing the practice. The authors also note a lack of literature in the field and call for future studies to provide a richer understanding of peer-to-peer feedback. This study is a multi-case study that investigated how the practice of peer-to-peer feedback informs teacher efficacy and the factors that may influence the quality of teacher efficacy. This provides more data to help instructional leaders as they apply peer-to-peer feedback. Ultimately, principals need more information to make more informed decisions. Additionally, the definition of peer-to-peer feedback is broad, and this study attempted to discover the essential elements of peer-to-peer feedback that inform teacher efficacy in positive or negative ways. Thus, the research may better equip school administrators with additional data to make informed decisions when implementing peer-to-peer feedback in their schools.

Teacher efficacy are the self-beliefs a teacher has to reach all students and successfully bring about the outcomes they desire (Guo et al., 2011; Haverback & McNary, 2015; Hilby et al., 2014; McNeil et al., 2013; Saine & West, 2017; Swanson, 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). Several studies illustrate that when a teacher acquires higher levels of teacher efficacy they teach more effectively (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). Thus, understanding how peer-to-peer feedback informs teacher efficacy is beneficial to school leaders in fulfilling their roles as teacher evaluators. Some studies suggest that peer-to-peer feedback increases teacher

efficacy (Bruce & Ross, 2008; Koch, 2014; Ridge & Longhurst, 2020), but there is still a lack of understanding of why or what factors contribute to teacher efficacy due to a deficiency of qualitative studies and a general dearth in the peer-to-peer literature.

Accordingly, this current study intended to provide additional data to the limited pool of literature of peer-to-peer feedback. Understanding how peer-to-peer feedback informs teacher efficacy is paramount in determining the effectiveness of the practice. Ultimately, this dissertation aimed to assist principals in their roles as instructional leaders to improve instruction in their schools. This dissertation applied a multi-case case study of peer-to-peer feedback at two separate elementary schools. The two schools are enacting the practice of peer-to-peer feedback very differently (it is important to note they would not use the academic term "peer-to-peer feedback," but the strategies used fall under the umbrella of the peer-to-peer feedback definition used for this study). These schools applied peer-to peer feedback in vastly different ways which helped to identify common elements in implementing the practice in schools regardless of the myriad of ways it is currently being applied. This study also aimed to see how peer-to-peer feedback informs teacher efficacy. The data was first analyzed individually for each case to find themes and factors which inform teacher efficacy at each school. Afterwards, a cross analysis was used to help find common themes across the cases to help find the essential elements of peer-to-peer feedback. Data was gathered through semistructured interviews, focus groups, and journal responses. The themes identified from the data were analyzed using Bandura's framework to see how peer-to-peer feedback informs self-efficacy (or teacher efficacy which is self-efficacy for teachers). The social cognitive

theory, specifically self-efficacy, was the guiding framework throughout the study.

Significance of Problem

The last 20 years has been marked by significant federal changes in education. They include No Child Left Behind (NCLB), Race to the Top (RTTT), and Every Student Succeeds Act (ESSA) and they have influenced the current trends in teacher evaluation because of the added responsibilities and accountability measures placed on principals. As a result, principals are now tasked with more and more responsibilities to help improve their schools. Consequently, many states have created feedback protocols to assist principals in their high-stake roles to improve instruction in their teachers which requires more time from principals (Close et al., 2020; Darling-Hammond et al., 2011). One of the difficulties with these added measures is principals do not have the time or the resources to give the feedback that teachers need (Donaldson & Woulfin, 2018; Kraft & Gilmour, 2016). Even when principals do provide feedback, they often do not provide meaningful feedback or cannot provide content-specific feedback because their training or experience is not in that subject area. (Kraft & Gilmour, 2016; Weisberg et al., 2009). This is troubling because one of the most important factors in the academic success of students is content specific pedagogy from the teachers (Darling-Hammond, 2000). In a study of 606 school leaders, Lavigne and Chamberlain (2017) learned that many principals felt encumbered by the observations they needed to do, although many found the practice of teacher observations effective. In another study of 54 principals, Vogel (2018) discovered that 91% of principals consider teacher observation and feedback as

one of their primary roles. However, in a study of how principals use their time Grissom et al. (2013) found that principals used only .5% of their time on coaching and a total of 1.8% of their time evaluating teachers. Thus, even if principals wanted to observe more, they struggle fulfilling this part of their roles. Hallinger (2005) asserts there is too much being asked of principals. This leads to some consequences which affect teachers. Grissom et al. also found that this crunch on time has led principals to spend more time on administrative duties than instructional leadership duties. Wieczorek et al. (2019) describe the problem principals face as instructional leaders and personnel leaders:

> As U.S. federal- and state-level accountability systems continue to evolve under the latest federal K–12 education accountability structure, Every Student Succeeds Act (ESSA), there will need to be clear distinctions for teachers and principals regarding the role of supervision and evaluation as means to provide support and determine professional effectiveness, respectively. (p. 360)

ESSA allows flexibility but places the burden on states and local principals to create their own accountability measures (Darling-Hammond et al., 2016). Donaldson and Woulfin (2018) said,

> As ESSA increases the state's role in policy formation, it is crucial to consider how principals act as intermediaries between state policy and teachers. For various reasons, principals can and will push and pull state policy in different ways. (p. 551)

Hence, principals can now look to other strategies to alleviate all they are being asked to do, especially in teacher observations. This might be a positive change because in the Teaching and Learning International Survey (TALIS) Ford et al. (2018) learned that teacher satisfaction was higher when the primary observer was not an administrator. Although principals may be skillful at providing feedback after teacher observations, the research found by these scholars suggests that teachers may prefer a peer to perform the

observation. Therefore, peer-to-peer feedback is a strategy that principals may apply in order to help teachers while still accomplishing all they have been asked to do from federal movements.

Theoretical Framework of Investigation

Albert Bandura's social cognitive theory guided this study. His theory focuses on learners as social creatures and as agents (Bandura, 1982, 2001). Bandura (2001) describes learners as "…generative, creative, proactive, and reflective, not just reactive" (p. 4). Furthermore, Pajares (2002) says, "People are viewed as self-organizing, proactive, self-reflecting and self-regulating rather than as reactive organisms shaped and shepherded by environmental forces or driven by concealed inner impulses" (p. 1). A key part of this theory is how learners are affected by their environment and how this affects their self-beliefs. Self-efficacy is part of this theory and guided much of the analysis of this study.

Self-efficacy is an individual's self-beliefs of their abilities to bring about a desired result (Bandura, 1977, 1982; Bandura & Cervone, 1983; Bandura & Schunk, 1981). These self-beliefs may or may not be a true reflection of their abilities. Bandura (1982) said,

> Self-efficacy judgments, whether accurate or faulty, influence choice of activities and environmental settings. People avoid activities that they believe exceed their coping capabilities, but they undertake and perform assuredly those that they judge themselves capable of managing. (p. 123)

Accordingly, it is clear what a learner thinks about their abilities will affect their performance and efforts to bring about desired results (Bandura & Cervone, 1983). Those

with higher levels of self-efficacy are more persistent and resilient and are more willing to extend additional effort to accomplish the task at hand (Bandura, 1977, 1982). Thus, an important finding and tenet of self-efficacy is that an individual who has higher levels of self-efficacy is better able to accomplish a task than an individual who has lower levels of self-efficacy (Bandura, 1977; Bandura & Cervone, 1983; Buss, 2010; Fahlman et al., 2013). This is particularly true in education. Teachers with higher levels of teacher efficacy consistently have higher student outcomes (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998).

Bandura (1977) teaches that there are four ways self-efficacy is informed. These four ways are: performance accomplishments, vicarious experiences, verbal persuasion, and physiological states. Bandura explains that performance accomplishments are the primary and most important source which inform self-efficacy. This is because they come from personal experiences. Vicarious experience is learning through others. An example of this is observation. If a learner can observe another person successfully complete a task, then it gives them the self-beliefs that they can successfully complete the same task. This is only true if the learner does not perceive the model as unachievable. The third category of informing self-efficacy is verbal persuasion which is mediated through language. Verbal persuasion is commonly used to motivate people by positive words. An example in peer-to-peer feedback could be a peer reassuring a struggling teacher. Last, physiological state is the emotional state of a learner. The support from peer-to-peer feedback could influence the stress levels of a teacher in positive or negative ways. This framework of how self-efficacy is informed was a guiding source in coding and was part

of “a priori” coding in this study. Thus, the four *a* priori codes that were utilized in this study were:

1. Performance Accomplishments
2. Vicarious Experience
3. Verbal Persuasion
4. Physiological States

Additional information on coding and literature on teacher efficacy will be provided in subsequent sections of the manuscript.

Rationale for Investigation

As mentioned previously, principals continue to be overwhelmed and burdened with all the responsibilities placed upon them. Content-specific feedback and time for feedback are difficult for many principals and are vital for teachers to improve their practice (Donaldson & Woulfin, 2018; Kraft & Gilmour, 2016). The current federal movements increase the responsibilities of principals and create tension with their roles as an evaluator and an instructional leader. Peer-to-peer feedback is a strategy which principals can use to help them accomplish all their responsibilities. One challenge for principals who want to apply this strategy is the literature on peer-to-peer feedback is still sparse and needs more development (Ridge & Lavigne, 2020). This makes it difficult for principals to enact a practice that is still in many ways unproven especially during a period of high stakes and accountability. Instructional leaders will likely want to utilize strategies which are shown to improve student achievement, which is why this study deliberately explored how peer-to-peer feedback informs teacher efficacy.

Teacher efficacy is one of those factors that has repeatedly shown to be a key

component in higher student outcomes (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). It is difficult to isolate one variable to prove that a specific strategy helps improve student outcomes. This study looked at how peer-to-peer feedback informs the teacher efficacy of educators. If this study and future studies can provide evidence that peer-to-peer feedback informs teacher efficacy in positive ways, then it could be recommended to instructional leaders as a practice that leads to higher student outcomes. The converse is also true. If this study and future studies can provide evidence that peer-to-peer feedback informs teacher efficacy in negative ways, then it should not be recommended to instructional leaders.

In addition, this study will look at data from participating schools to provide evidence to why certain factors inform self-efficacy in positive or negative ways. This will enable principals, when they are applying the broad definition of peer-to-peer feedback (including the definition in this study), to understand what elements are essential and which are not. Ultimately, this study will provide another data point for researchers and practitioners attempting to understand the value of peer-to-peer feedback.

Research Questions

This research aims to help practitioners and researchers have a better idea of the usefulness of peer-to-peer feedback in fostering teacher efficacy. The researcher wanted to understand how peer-to-peer feedback informs teacher efficacy with the end goal of understanding how peer-to-peer feedback might affect student outcomes. As stated previously, few studies have suggested that peer-to-peer feedback has a positive effect on

teacher efficacy (Koch, 2014; Ridge & Longhurst, 2020). There are several other studies that might suggest that peer-to-peer feedback inform teacher efficacy positively, but the focus of those studies was not self-efficacy. The purpose of the research helped guide the design of this study and the research questions for this exploration. Thus, the researcher followed Yin's (2018) literature for asking exploratory questions and the following research questions were created and guided this study.

1. How is teacher efficacy informed by peer-to-peer feedback?
2. What factors influence the quality of teacher efficacy?

The first question helped illuminate if teacher efficacy is affected by peer-to-peer feedback. The second question provides answers to why peer-to-peer feedback affects teacher efficacy—if it did. Both questions had clear answers when the research was concluded.

Summary of Methodology

The methodology used for this study was a multi-case qualitative study. A case study is "an empirical method that investigates a contemporary phenomenon (the 'case') in depth and within its real-world context…" (Yin, 2018, p. 15). The phenomenon in this study is peer-to-peer feedback. Two *different* schools were deliberately chosen to be part of the study, which will be the cases, and both were applying peer-to-peer feedback differently. Two schools applying peer-to-peer feedback *differently* were chosen to find common components that help make the practice effective. Since there many ways to apply the definition of peer-to-peer feedback, a multi-case study helped highlight the key elements in successful implementation of peer-to-peer feedback regardless of how the

practice was applied. The bounds were the individual schools and their practices of peer-to-peer feedback. First, the cases were analyzed separately and then cross-analyzed to find shared themes. As part of the analysis, the themes were identified and put in groups using the social cognitive theory and self-efficacy. The four ways that self-efficacy is informed were used as *a* priori codes to guide the analysis (see Appendix A). These *a* priori codes are performance accomplishments, vicarious experience, verbal persuasion, and physiological states. A qualitative study allowed the researcher to understand how certain activities affect the self-efficacy of teachers. A more in-depth description will be described in the methodology section of the manuscript.

Researcher Positionality

In my current position as a religious educator, peer-to-peer feedback is a strategy used frequently. I have loved participating, and I find it very helpful. I have experienced success using this practice from anectodical experience. I have also engaged in this topic throughout most of my doctoral degree. I wanted the results to be something that helps other researchers and principals. I believe principals need more support and utilizing peers is one of the ways principals can find relief.

The people working at the participating schools in this study are people that I have worked with in educational settings. I will explain more why the schools were selected in the methodology section, but when I reached out to the district to discover which schools engage in the practice of peer-to-peer feedback, these were the only two schools. The district will be called by the pseudonym Rocky Mountain School District. I

collected data primarily from the teachers, but these principals provided context for each case with limited data. Even though they are not the main data source, I needed to be aware of any potential bias that I might have had by working with people I know.

Manuscript Organization

This manuscript will be organized by four more chapters. In Chapter II, the researcher explains the current literature on the current landscape of teacher evaluation, peer-to-peer feedback, and teacher efficacy. This provides context and breadth for the study and justifies the need for this study. Following the literature review, Chapter III will introduce the design and methods used throughout the study. That chapter focuses on why a qualitative study was appropriate and the process the researcher went through, including coding, to identify the themes of the study. Chapter III also reviews the details of data collection and the deliberate decisions made by the researcher. Chapter IV will discuss the results of the study followed by an analysis of the results. This includes the themes of the study and how they inform teacher efficacy. Chapter V will have further analysis and a call for future studies in peer-to-peer feedback. Specifically, Chapter V answers the research questions and highlights the validity and importance of this research.

CHAPTER II

LITERATURE REVIEW

In order to give proper background to the context of the study, there is important literature to understand. Accordingly, a review of the current landscape of teacher evaluation, peer-to-peer feedback, and teacher efficacy will be explained. Understanding the literature provides justification for this dissertation and helped inform the design of the study followed in Chapter III.

Current Landscape of Teacher Evaluation

As discussed previously, the current landscape of teacher evaluation is heavily influenced by federal movements in the last two decades. NCLB, RTTT, and the ESSA increase accountability and put more pressure on administrators and teachers to improve student learning. As part of this increased accountability, several states have implemented new feedback measures to assist principals in their evolving and ever-increasing role as instructional leaders (Close et al. 2020; Darling-Hammond et al., 2011). These federal programs heavily influence what a principal can and cannot do with the time they have. Principals are now responsible to follow these new rigid guidelines given to them by the government or their local school districts.

NCLB was passed as a bipartisan law to help improve education in the United States, but most especially, low achieving students. As Darling-Hammond et al. (2016) state that the primary purpose was, "…to ensure that the success of traditionally underserved students mattered as much as that of other students" (p. 2). Some of the

changes were,

> increased accountability for States, school districts, and schools; greater choice for parents and students, particularly those attending low-performing schools; more flexibility for States and local educational agencies (LEAs) in the use of Federal education dollars; and a stronger emphasis on reading, especially for our youngest children. (U.S. Government Accountability Office, 2004)

As part of these changes, principals had to be more accountable and demonstrate they were reaching the plans of NCLB. They needed to reach what NCLB called "adequate yearly progress." Schools would need to demonstrate adequate progress to avoid further improvement plans, or sanctions from the federal government. By 2004, every state had an improvement plan (U. S. Government Accountability Office, 2004), and many of the states included teacher observation and feedback from administrators to help improve teaching in their states (Close et al., 2020; Donaldson & Woulfin, 2018; Donahue & Vogel, 2018; Ford et al., 2018; Garet et al., 2017; Goe, 2013; Hallinger et al., 2014; Kraft & Gilmour, 2016; Weisberg et al., 2009). Thus, many principals now were charged to observe teaching more often to ensure teacher improvement.

This led to many changes. In 2009, the Obama administration introduced a new program called RTTT, which incentivized more innovation by states for their instruction leaders. RTTT was a $4.35-billion program that was:

> …a competitive grant program designed to encourage and reward States that are creating the conditions for education innovation and reform; achieving significant improvement in student outcomes, including making substantial gains in student achievement, closing achievement gaps, improving high school graduation rates, and ensuring student preparation for success in college and careers; and implementing ambitious plans in four core education reform areas: Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy; Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction; Recruiting, developing, rewarding, and

> retaining effective teachers and principals, especially where they are needed most; and Turning around our lowest-achieving schools. (U.S. Department of Education, 2009)

One of the major consequences that came from this program was granting states the autonomy to be innovative and reform their current efforts (U.S. Department of Education, n.d.). During this time period 46 states submitted applications. This is important to note because it comes with the consequence of 46 states who changed their teaching evaluation processes to meet the conditions of the grant.

One of the main aspects in RTTT were the definitions of "Effective teacher" and "Highly effective teacher." This placed pressure on helping teachers improve. Some of the major consequences were value-added measures, new teacher evaluation forms, and again increased teacher accountability (Boggan & Wallin, 2016; Collins, 2014; Danielson, 2011, 2013; Darling-Hammond et al., 2011, 2012; Garet et al., 2017; Goldring et al., 2015; Hallinger et al., 2014; Marzano & Toth, 2013; Murphy et al., 2013). All of these updates eventually led the government to update or change NCLB with the introduction of ESSA.

The ESSA was introduced and signed into law December 2015. Thus, this law has only been operative for approximately the last 5 years and there is still little data to determine the consequences of passing this law. There were some major changes that affect what a principal is able to do. The National Association of Secondary School Principals summarize the changes this way.

> Eliminates Adequate Yearly Progress (AYP) and Highly Qualified Teacher (HQT), Eliminates the requirement for teacher/principal evaluation systems and/or linking results to student test scores, Eliminates prescribed interventions in identified schools, Eliminates School Improvement Grant funds and requirements,

> Migrates Title III language proficiency accountability requirements to Title I, Makes funds more flexible (e.g., Title II and Title IV transferable), Reduces the authority of the U.S. secretary of education. (NASSP, n.d.)

This solidified the ability for states and local schools to be more flexible in how they would help improve teaching. How state leaders applied these changes varied from state to state. All of the changes of NCLB, RTTT, and ESSA have influenced what is happening currently in teacher evaluation and are not free of consequences. Some of the common changes across states were more value-added measures (VAM), more formal teacher observations and feedback, and negative consequences that resulted from the amount of time required by principals to provide more feedback (Close et al., 2020; Collins, 2014; Wieczorek & Theoharis, 2015).

VAM were established to create a mechanism to isolate teacher effectiveness on student learning. It was also meant to remove human error in making personnel decisions from observations and is an algorithm set to measure the effectiveness of a teacher over years by observing student academic outcomes. In short, VAM are used to measure the value of an individual teacher by using mathematical algorithms that isolate a teacher's ability to improve student learning. By 2014, 40 out of 50 states had implemented VAM (Close et al., 2020). Although, seemingly a positive tool, principals hesitated to use VAM in personnel decisions because of its lack of reliability and a general lack in the tool's effectiveness to measure an individual teacher's value (Darling-Hammond et al., 2012; Goldring et al., 2015). Therefore, principals turned back to the familiar practice of teacher observation which flexibility was given by ESSA. Nevertheless, the effects of the high-stake measure still affect current teacher evaluation because some still use VAM

even if many have moved away from using this tool.

Close et al. (2020) recently conducted a review of the current landscape of teacher evaluation by state. They found that 71% of states currently use teacher observation as part of their teacher evaluation process. In fact, this number could be higher because many states leave it up to local districts to decide. Thus, nearly three-fourths or more of the country are observing teachers as part of their evaluation process. This is problematic because of the amount of time it takes to do all the observations. Murphy et al. (2013) describe the problem principals face, stating:

> The average elementary school has 475 students, 20 students per teacher, one principal (and no assistant principal), and a small cadre of other professional educators and staff that require the principal's attention. Let us assume a nine-hour day (2700 minutes per week). This means that the average principal spends about 80 minutes a week on teacher evaluation, about 3 minutes per teacher per week (p. 351).

Hence, although researchers find teacher observations and feedback to be an effective practice in helping teachers (Bickman et al., 2012; Boggan & Wallin, 2016, Derrington, 2016; Donahue & Vogel, 2018; Goe, 2013; Hallinger, 2005; Hill & Grossman, 2013; Lavigne & Chamberlain, 2017; Mireles-Rios et al., 2019; Neumerski et al., 2018), principals do not have all the time they need to accomplish teacher observations in an effective way (Donaldson & Woulfin, 2018; Kraft & Gilmour, 2016). Wieczorek et al. (2019) describe how the current federal movements give rise to more help for principals:

> As U.S. federal- and state-level accountability systems continue to evolve under the latest federal K–12 education accountability structure, Every Student Succeeds Act (ESSA), there will need to be clear distinctions for teachers and principals regarding the role of supervision and evaluation as means to provide support and determine professional effectiveness, respectively. (p. 360)

This clearly provides evidence and reason for alternative strategies to help principals.

Grissom et al. (2013) found that principals spend and prioritize their time on administrative duties instead of helping teachers. Darling-Hammond (2000) asserts that one of the most important factors in student outcomes is teacher quality in their specific content-area, which can be problematic for principals who may or may not have the training to teach effectively in a specific teacher's content. Thus, content-specific pedagogy feedback would be more helpful to improving teacher quality. Consequently, what are current practices that principals may use to help assist them in their role? Some districts have instructional coaches and other personnel to help teachers but hiring more employees might not be a financial possibility for all school districts. Peer-to-peer feedback is one practice which could be used to help teachers improve that does not require additional personnel.

Peer-to-Peer Feedback

Peer-to-peer feedback is a practice schools frequently use but goes by various names. For example, the definition used in this study has a myriad of activities which would be considered peer-to-peer feedback. In a recent review of the literature, Ridge and Lavigne (2020) used this definition to have a wide umbrella of all the activities that can be included under this definition in order to find as much literature as possible. They noted that the body of literature is still limited (thus justifying a wide-scope definition), but overall, the researchers have found the impact of peer-to-peer feedback to be positive. There are several positive aspects of the practice and some negatives which need to be acknowledged.

Ridge and Lavigne (2020) found the most common positive consequence of peer-to-peer feedback was teacher collaboration. Often times teachers might feel isolated, but peer-to-peer feedback gives them a support system to help them by giving them a colleague to work through the challenges of teaching (Phillips & Glickman, 1991; Pollara, 2012; Slater & Simmons, 2001). Ridge and Longhurst (2020) found that teachers preferred the support of friendship as much or more than anything else. More specifically, a principal cannot take the time that a colleague can in helping a teacher in their day-to-day tasks. Principals cannot be the type of friends that some teachers desire. Even if principals desired to have more familiar relationships with their teachers, they do not have the time. Conversely, although teachers are busy, they are more available and their proximity in the classroom can help teachers. In a recent review of the Teaching and Learning International Survey (TALIS) Ford et al. (2018) found that teachers prefer to have a primary observer who is not a principal or administrator. Thus, peer-to-peer feedback might be a preferred strategy for teachers and might be more effective than having observations conducted by a principal or administrator who lacks time.

Several studies suggest that peer-to-peer feedback provides meaningful feedback (Arnau et al., 2004; Castañeda-Londoño, 2017; O. Lee & Choi, 2013; Licklider, 1995; Ridge & Longhurst, 2020). It is still unclear if the practice is more effective than principal observation, but it might not matter since principals do not have time to observe teachers as much as they desire. For example, Lavigne and Chamberlain's (2017) study of 606 school leaders found that principals felt observations were effective, but time was the biggest burden. Additionally, researchers have learned that peer-to-peer feedback

improves instruction such as asking better questions, increasing learning participation, and more variety (Licklider, 1995; Ma et al., 2018; Phillips & Glickman 1991; Pollara 2012; Prince et al., 2010; Scheeler et al., 2010; Slater & Simmons, 2001). If the end goal of all the federal changes is to help students, then these findings should be encouraging.

Licklider (1995) found that teachers who participated in peer-to-peer feedback were able to improve their ability to ask questions. Phillips and Glickman (1991), in their study of in-service teachers, learned that teachers developed pedagogically by improving specific teaching skills they wanted to improve. The teachers in Pollara (2012) reported greater instructional growth in curriculum and classroom management. All of these studies suggest that teachers' self-beliefs could be strengthened by applying peer-to-peer feedback.

In addition, peer-to-peer feedback can also help with new ideas and innovation (O. Lee & Choi, 2013; Thijs & Van den Berg, 2002; Vacilotto & Cummings, 2007), which align with federal movements to allow autonomous decisions to occur in schools. The success which has been seen in peer-to-peer feedback are dependent on some key factors. A primary element of the effectiveness of peer-to-peer observations is trust (Arnau et al., 2004; Zwart et al., 2007). If a teacher doesn't trust the peer they are working with, then the practice could be less helpful or meaningless. Ridge and Longhurst (2020) found that trust and the negotiated relationship was important for peer-to-peer feedback to work among elementary school teachers. Lastly, there are some studies where the researchers discovered an increase in teacher confidence and teacher efficacy (Bruce & Ross, 2008; Koch, 2014; Prince et al 2010; Syh-Jong & Hsiu-Chuan

2009). In this study, the researcher tried to understand how teacher efficacy is informed with peer-to-peer feedback and what factors within the practice contribute to teacher self-beliefs.

Bandura (1977) asserts that self-efficacy is informed in four ways—performance accomplishments, vicarious experience, verbal persuasion, and physiological states. Some scholars have found that peer-to-peer feedback increases self-efficacy (Koch, 2014; Ridge & Longhurst, 2020). Peer-to-peer feedback might provide multiple ways to increase self-efficacy which traditional observations cannot. One example of how peer-to-peer feedback can inform self-efficacy positively is through vicarious experiences. Oftentimes, teachers may learn better from observing their peers which in turn can help improve instruction (Anderson et al., 2005; Porras et al., 2018).

In addition, peer-to-peer feedback has the potential to remove feelings of isolation (Phillips & Glickman, 1991; Pollara, 2012; Slater & Simmons, 2001), which would improve the physiological states of teachers. A peer can be someone there for teachers when they need it. It provides someone who is "fighting their same battles" and understands and validates their concerns (Ridge & Longhurst, 2020). This study looked to understand this effect on teachers and is important because higher physiological states create higher levels of self-efficacy and improve overall teacher performance (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998).

Although, there are several positive outcomes of peer-to-peer feedback, there are also some unknowns or negatives. As stated previously, the literature is sparse and lacks

data to ensure that the practice of peer-to-peer feedback is positive (Ridge & Lavigne, 2020). Some studies found that peer-to-peer feedback did not improve instruction, though the researchers did not state whether or not peer-to-peer feedback had an adverse effect on instruction (Kohler et al., 1997; Murray et al., 2009). For example, Kohler et al. found that teachers rarely applied what they heard from their peers. There was no evidence that teachers improved or changed their instruction because of their peers. Murray et al. measured students' outcomes and there were no changes after the intervention was introduced.

Additionally, much of the current literature is not in domestic k-12 settings and is from a different context than U.S. There is also a lack of qualitative research and consequently it is hard to replicate or generalize small qualitative studies.

Another negative consequence found in the literature is the amount of time it will take for teachers to do the peer-to-peer observations (Jao, 2013; Ovens, 2004). Although this practice might alleviate stress from principals, it is possible that it could increase stress for the teachers. In their study, Ridge and Longhurst (2020) learned that teachers did not like having a formal schedule of observations. Additionally, it might be difficult for veteran teachers to engage since novice teachers benefit more from feedback than experienced teachers (Weisberg, 2009). Teachers may also hesitate to provide meaningful feedback to avoid hurting their partner's feelings (Neubert & McAllister, 1993). Training teachers how to provide meaningful feedback would add another burden to the principals because it would take more time, which is already limited. These factors reiterate the need for more research to understand the effectiveness of peer-to-peer feedback.

Teacher Efficacy

As stated previously, self-efficacy is an individual's self-beliefs of their abilities to bring about a desired result (Bandura, 1977, 1982; Bandura & Cervone, 1983; Bandura & Schunk, 1981). Teacher efficacy is simply self-efficacy in teaching. One definition of teacher efficacy is a teacher's beliefs of how to "successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998, p. 233). Another definition says, "We define teacher efficacy as a teacher's belief in his or her own capacities as a teacher to successfully implement an instructional strategy or influence student learning" (McNeil et al., 2013, p. 2613). Researchers generally agree that teacher efficacy is the self-efficacy a teacher has to reach all students and to bring about desired results in the classroom setting (Guo et al., 2011; Haverback & McNary, 2015; Hilby et al., 2014; McNeil et al., 2013; Saine & West, 2017; Shi, 2014; Swanson, 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran, et al., 1998).

The most important part of teacher efficacy is the consequences it has on students. Researchers have repeatedly found that teachers with higher levels of self-efficacy are more persistent with helping students, teach more effectively by bringing about desired results, and have higher student outcomes (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). When a teacher has lower levels of self-efficacy, they are less likely to persist when students or situations become difficult (Shi, 2014). Teacher efficacy is content-specific which means even if a teacher has high self-efficacy in teaching algebra that does not mean they will have high self-efficacy in teaching geometry.

Results from literature have evidence of specific areas where teacher efficacy has made a difference. Teachers with higher levels of self-efficacy have demonstrated to teach more effectively in teacher literacy education (Gross, 2010), math and science (Buss, 2010), and language education (Swanson, 2012). This is pedagogically specific but general pedagogy improves as well. There are several studies that demonstrate that teachers can differentiate instruction and implement curriculum more successfully when they have higher levels of self-efficacy (Dixon et al., 2014; Drape et al., 2016; Fahlman et al., 2013; McNeil et al., 2013). In short, teacher efficacy is one factor that is shown to improve classroom instruction.

These outcomes could also translate to novice and preservice teachers as the literature is full of examples of preservice students who benefited from having high teacher efficacy (Fahlman et al., 2013; Haverback & McNary, 2015; Hilby et al., 2014; Mahalingappa et al., 2018). There is little literature in understanding how the self-efficacy as a preservice teacher translates to future success as a full-time teacher. Thus, more studies could focus in understanding this transition. Last, self-efficacy is paramount to the success of online teaching (M. H. Lee & Tsai, 2010; Mahalingappa et al., 2018; Pan & Franklin, 2011; Saine & West, 2017). While there are four ways self-efficacy is informed, there are some specific practices which have helped increase teacher efficacy.

Mastery experiences are what Bandura identified as the most influential ways to inform self-efficacy (Bandura, 1977). Consequently, teachers with more positive teaching experiences are more likely to have higher teacher efficacy (Tschannen-Moran & Woolfolk-Hoy, 2007), while those with less positive teaching experiences are likely to

have less teacher efficacy (Guo et al., 2011). Hilby et al. (2014) assert that prior success in the classroom helps increase self-efficacy. Thus, it is important for principals or peers to help teachers build on previous success. It is possible that when teachers do not have the resources to be successful or do not believe they do, or when teachers do not understand the expectations placed upon them, their self-efficacy will suffer (Laueremann & Karabenick, 2013; Mizzi, 2013).

Conclusion to Literature Review

The current landscape in teacher evaluation, peer-to-peer feedback, and teacher efficacy all provide background for this study. Principals have more pressure placed on them because of the recent changes in teacher evaluation. This pressure often comes because of a lack of time to do all they need to do including their roles as instructional leaders. Peer-to-peer feedback is a strategy which can help principals in their roles as evaluators and instruction leaders and can be applied in individual schools. Peer-to-peer feedback is within the innovative guidelines from the ESSA to help improve instruction. One way to measure the effectiveness of peer-to-peer feedback is by understanding how it informs teacher efficacy. When a teacher has higher levels of teacher efficacy, then student outcomes improve. Thus, the literature provides justification for a study exploring how peer-to-peer feedback informs teacher efficacy.

CHAPTER III

METHODOLOGY

This study relied on the strengths of qualitative research to answer the research questions. Miles et al. (2020) describes perfectly why qualitative methods is preferred:

> One major feature of well-collected qualitative data is that they focus on *naturally occurring, ordinary events in natural settings,* so that we have a strong handle on what "real life" is like. Qualitative data, with their emphasis of people's *lived experiences,* are fundamentally well suited to locating the *meanings* people place on the events, processes, and structures of their lives for connecting these meanings to the *social world* around them.

This research focused on the effects of peer-to-peer feedback on teacher efficacy and how peer-to-peer feedback informs teacher efficacy. The aim of this study was to understand what was happening already in schools. Self-efficacy is about self-beliefs (Bandura, 1982), and this study sought to researchers and practitioners understand the meaning teachers put to the activities of peer-to-peer feedback. How does this strategy inform teacher self-beliefs? What factors contribute to these self-beliefs and why? The case study method was used to understand the phenomenon of peer-to-peer feedback. Yin (2018) argues that case study can help with an exploratory study. This study explored how peer-to-peer feedback informs teacher efficacy and gathered evidence why or how. The multi-case study was selected for this study because it strengthened the arguments and helped the researcher understand the phenomenon better (Miles et al., 2020).

Rationale for Investigation

As stated previously, the purpose of this study was to help understand if peer-to-

peer feedback was a practice that principals may use to assist them with improving teachers' instructional skills. This study looked specifically at how and why the practice of peer-to-peer feedback informs the teacher efficacy of the participants. If this study and future studies can provide evidence that peer-to-peer feedback is a factor that can increase teacher efficacy, then instructional leaders can be confident implementing the practice. This study explored the key factors that informed the quality of teacher efficacy in the two participating schools. A qualitative study was deliberately chosen because it can provide a narrative for how peer-to-peer feedback informs teacher efficacy and what those factors are and why. Currently, the majority of studies on teacher efficacy use quantitative research (see Table 1) and those shaded represent qualitative studies. This table emphasizes the lack of qualitative studies in the field.

As seen in the table and from a review of the literature on teacher efficacy, there were only three studies (highlighted) that used qualitative methods. Qualitative studies are rare in this field, and in the studies above, the researchers asked different questions than those asked in this study. The studies from the table and other studies in the field show the effects that peer-to-peer feedback have on teacher efficacy, but there is a gap of understanding why. This study attempted to understand why certain factors affect teacher efficacy and that is the reason a qualitative study is most appropriate for this study.

Design of Study

This study closely followed the procedures laid out by Yin (2018) for "Multi-Case Study Procedure" (see Yin, 2018, Figure 2.5 Multiple-Case Study, p. 58). Yin describes three phases for a multi-case study which are: (1) define and design; (2) prepare, collect,

Table 1

Teacher Efficacy Methodology

Author(s)	Methodology	Purpose or questions of study	Summary of finding
Buss (2010)	Quantitative using efficacy scales. 325 undergrad students.	Purpose was to examine preservice teachers who have lower or higher teacher efficacy teaching science and math when they graduate.	Students have lower levels of teacher efficacy teaching science and math when they graduate.
Dixon et al. (2014)	Quantitative study using Likert efficacy scales. 41 teachers.	To see to what extent teacher efficacy affects the amount that a teacher will differentiate instruction for different students	"When teachers are efficacious in their beliefs about their ability to teach students effectively, they are more likely to differentiate. We suggest that if schools believe in differentiation, they should offer practice in differentiation through workshops that allow teachers to write leveled or tiered lessons together" (p. 125).
Drape et al. (2016)	Qualitative, single case study, phenomenology.	1. What support do mid-career teachers require as they integrate other content areas and the NGSS into their current curriculum? 2. How do teachers describe their experience when discussing their efficacy for teaching a science-focused course?	"The findings support the idea that efficacy is a key factor in the ability to integrate other subject areas in mid-career teachers. As a result, teachers voiced more challenges than rewards in reference to integration of other subjects and noted that support from administrators and the state agriculture education association should be improved in order to help with the integration" (p. 44).
Fahlman et al. (2013)	Quantitative study using teacher efficacy scales. 285 preservice teachers.	They looked to see how their instruction increased teacher efficacy to teach health curriculum	The curriculum did affect teacher efficacy positively.
Gorozidis & Papaioannou (2011)	Quantitative using efficacy scales. 290 teachers.	To see the effect of self-efficacy would have in teachers helping students apply the curriculum.	Increased self-efficacy led to better application.

(*table continues*)

Author(s)	Methodology	Purpose or questions of study	Summary of finding
Guo et al. (2011)	Quantitative using efficacy questionnaires. 48 teachers.	To understand relationship between teacher characteristics and teacher efficacy.	"In the present study, we reasoned that preschool teachers' self-efficacy would be contextually situated, such that the characteristics of teachers and classrooms would be associated with teachers' self-efficacy. Our results confirmed the influence of these contextual variables. Two major findings emerged from our study. First, correlation analysis showed that teachers' self-efficacy was significantly correlated with both dimensions of teachers' sense of community, namely teachers' perceptions of staff collaboration and their decision-making influence. Second, hierarchical multiple regression analysis demonstrated a significant interaction between teachers' perceptions of staff collaboration and children's engagement in predicting teachers' self-efficacy, when controlling for teachers' race. However, neither teachers' teaching experience nor their decision-making influence was a significant predictor of teachers' self-efficacy" (p. 965).
Haverback & McNary (2015)	Quantitative using a paired T test.	To understand how preservice teachers' self-efficacy changed throughout the semester in varying domains.	Teacher efficacy increased for teachers throughout semester and did not different based on domain.
Hilby et al. (2014)	Qualitative phenomenological study with 10 preservice teachers.	What factors contribute to the developments of preservice agricultural education teachers' mathematics efficacy?	Found common factors that contribute to teacher efficacy
Hutchins et al. (2012)	Quantitative study using health teaching self-efficacy scale. 80 teachers.	Quantitative study that aimed to understand teacher efficacy in health teaching in the Midwest.	"This study found that teachers surveyed in this Midwestern state were most comfortable teaching major content areas in health education and were least comfortable teaching the content areas of sexuality and aging. It also shows there was no correlation between years of teaching experience and comfort levels teaching various content areas with this group of participants. The current data indicates that the ability to use certain strategies is related to the confidence not only to teach, but also the confidence to organize materials and plan fieldtrips" (p. 29).

(*table continues*)

Author(s)	Methodology	Purpose or questions of study	Summary of finding
Klassen et al. (2010)	Quantitative Study using efficacy scales. 500 teachers from different countries in Elementary and Middle Schools.	Understand how teacher efficacy, stress, and collectivism affect job satisfaction in Canada, Korea, and the U.S.	Learned that teacher efficacy affects job satisfaction. The results were stronger in United States and Canada.
M. H. Lee & Tsai (2010)	Mixed. Used efficacy scales and an open survey. 538 teachers.	Understand teacher efficacy in web instruction	Learned that older teachers struggled more with technology than newer teachers and self-efficacy followed.
Mahalingappa et al. 2018)	Quantitative study using self-efficacy scales. 74 Preservice teachers finishing their program.	Aimed to understand if participation in project affects teacher efficacy.	The teachers who participated in project have higher teacher efficacy.
McNeil et al. (2013)	Quantitative study using self-efficacy scales and pre and posttests from students. 22 teachers.	Understand how self-efficacy and teaching practices affect student learning.	No substantial results. Still unknown. Further research is needed.
Pan & Franklin (2011)	Quantitative study using surveys and regression analysis. 559 teachers.	Identify factors of implementation of web tools.	Higher self-efficacy meant higher utilization of the web tools in class.
Saine & West (2017)	Qualitative study using pre and post surveys with open ended question. 36 teachers.	The purpose was to understand how virtual interactions between high school teachers affected self-beliefs of teaching writing	Self-efficacy was affected in 9 ways: giving feedback, working with students, technology, student writing, recalling previous experiences, more resources, becoming aware of their own emotions, and confidence to respond to students.

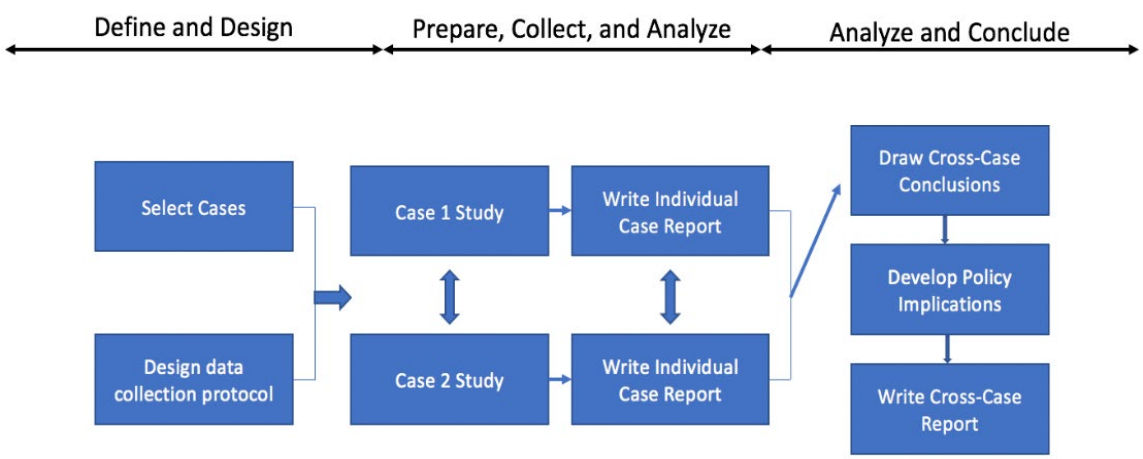
(*table continues*)

Author(s)	Methodology	Purpose or questions of study	Summary of finding
Shi (2014)	Quantitative study using efficacy surveys. Over 20,000 teachers.	Teacher efficacy in mathematics in 5 Asian countries.	"First, the descriptive statistical analysis of this study showed that teachers in each of the five countries/regions showed much lower overall teacher efficacy in teaching mathematics among which, Japanese teachers reported relatively low scores on each individual items of teacher efficacy than their colleagues from other four countries/regions" "Second, there were substantial differences in rating their efficacy in teaching mathematics within these Asian countries/regions. For example, among the five countries/regions, Japanese teachers reported relatively low scores on each item of teacher efficacy than their colleagues from other four countries/regions." "Third, the frequency levels of teachers' instructional practices in engaging students in learning mathematics in all five Asian countries/regions were lower than the international average." "Finally, significant differences were also identified with regard to teachers' instructional practices in engaging students between some of the five Asian countries/regions."
Swanson (2012)	Quantitative study using teacher efficacy scale and foreign language teacher efficacy scale. 891 US teachers and 174 Canadian teachers.	Research the relationships between teacher efficacy in language teaching and teacher attrition.	Findings showed teachers have a high level of efficacy teaching and reading and writing the target language but struggled with the cultural factor. There weren't large differences between US and Canada.
Tschannen-Moran & Woolfolk-Hoy (2007)	Quantitative Study using teacher sense of efficacy scales. 225 teachers who graduated from Ohio or Virginia universities.	Examined two parts of self-efficacy: verbal persuasion and mastery experience.	Teacher resources affected teacher efficacy while outward school characteristics did not. Novice teachers have lower teacher efficacy than veteran. Performance success increased efficacy beliefs.

and analyze phase; and (3) analyze and conclude. An adaptation of Yin's image was used for this study (see Figure 1).

Figure 1

Study Procedure



This study followed this guide by selecting the cases and conducting an analysis and report of each individual case. After the individual reports were conducted, cross case analysis and implications and conclusions were completed. One of the reasons a multi-case study was chosen was because it helps answer parts of the research questions that cannot happen as powerfully with a single case. Since the definition of peer-to-peer feedback is broad and can lead to various applications, this multi-case study allowed the researcher, to view different applications of peer-to-peer feedback. Additionally, the multi-case study design allowed opportunities to examine common elements of peer-to-peer feedback and how they informed teacher efficacy. For example, if a single case was used for the present study, then the results could only apply if the definition of peer-to-peer feedback was applied in that particular way. The multi-case study design gave more

evidence to explore the essential characteristics of the practice that are associated with positive teacher efficacy. An even more powerful study would be researching all the ways schools are applying peer-to-peer feedback, but that is beyond the scope of this dissertation.

Cases and Participants

A multi-case study was selected to strengthen the validity and power of the results (Miles et al., 2020; Yin, 2018). The two cases and the participants from each case will now be discussed. Yin describes two important parts of case studies: defining the case and bounding the case. Each case consisted of a unique elementary school within the same school district. The schools were selected purposively because they both were implementing the practice of peer-to-peer feedback differently and formally (although plenty of informal peer interactions occur). Teachers in Case 1 applied peer-to-peer feedback by using a mentor system to observe and give feedback, lesson plan, and engage in other collaborative activities. Teachers in Case 2 applied peer-to-peer feedback primarily by observing other teachers. The schools needed to be implementing the practice formally or it would be difficult to identify participants for the study. Therefore, the schools were selected because they were already enacting the practice of peer-to-peer feedback. The researcher contacted Rocky Mountain School District (pseudonym) and asked for help identifying schools that met that criterion for this research. There were only two schools in the entire district that qualified. Other school districts in the state were closed due to Covid-19 and that is why this school district was selected. Other

reasons Rocky Mountain School District was selected was because they had previously granted permission for similar kinds of research in the past, had schools that met the criteria, and were open. The two cases will now be introduced.

Case 1

The first case, which will have the pseudonym Sunshine Elementary School, will focus on an elementary school that is currently implementing peer-to-peer feedback. This is a K-6 school located in Utah. There are approximately 1,000 students with 85% being white students and 8.5% being Hispanic. This is not a Title I school. Five percent of the student body qualify for free or reduced lunch. The case was defined as those participating in peer-to-peer feedback at this school since not all teachers participate in the formal mentoring program. This school had peer mentors which were veteran teachers at the school that mentor novice teachers to the school. The novice teachers in the school are not always new to the profession but are all new to the school. These teachers will be referred to as veteran or mentor teachers and novice or mentee teachers with the background provided. The principal selected the mentor teachers, and the specific criteria was unclear besides that it was apparent he chose teachers he trusted. There was not a specific list of activities for peer-to-peer feedback but there was formal relationship established for the teachers, and they have meetings to ensure they are engaging in the practice. Several activities utilized by mentor teachers with their partners were observations, feedback, lesson planning, and goal setting. The principal expected observations, and the teachers participated in meetings and a book group with the principal. The participants for this case included two teachers and the principal. The

teachers who volunteered were on the same team (grade-level) but were not partners in the peer program. A minimum of two participating teachers was needed to triangulate the data. This would create multiple points of data from multiple different sources. This ensures the validity of the case. Since there were only two teachers who agreed to participate in the study, it was preferable that they were not a dyad so they can speak freely about their partners in the focus group. It was also important that there was at least one teacher who was a mentor and one novice teacher. This helped provide understanding if the experiences were different within the case. For example, it might have been beneficial for the novice teachers to engage in some activities but could have been a chore for the veteran teacher such as observing the teacher when they were busy with their other responsibilities. A novice teacher might have benefited from an observation where a veteran teacher might have believed they did not learn from observing and providing feedback. It was important to understand the different and shared experiences within the case. The principal participated in an interview to help bring context to the case. The teachers, not the principal, were the primary sources of data, but the principal validated some of the experiences of the teachers. Covid-19 changed how often teachers observed one another, but the teachers reflected on their past experiences as well as their current experiences to provide further understanding of the effects of peer-to-peer feedback at their school.

Case 2

Case 2 is an elementary school located in the same school district as Case 1 and will have the pseudonym Rocky Ridge Elementary School. Rocky Ridge is a K-6 school

with approximately 1,000 students. The student body is 81% White and 14% Hispanic students. Fourteen percent of students qualify for free and reduced lunch, so this is not a Title I school. This school had 31 full-time teachers with other specialized teachers and instructional staff. This case was different because every teacher in the school participated in peer-to-peer feedback. One of the major differences between the cases was in the way they applied peer-to-peer feedback. In this case teachers primarily observed one another without providing feedback. They did not have assigned partners. The teachers observed one another and were not instructed to do anything else explicitly. The principals occasionally assigned the teachers who they should go observe, but the teachers typically had the autonomy to choose who they wanted to observe. There was a formal assignment to observe another teacher once a quarter. There was no formal feedback, from the observers, unless their team leader observed them. This case included five teachers and the principal as participants. A minimum of two teachers was needed to triangulate data that follows Miles et al. (2020), to provide a minimum of three data points. The principal participated by bringing context to the case and helped describe the conditions. As with Case 1, the teachers were the primary sources of data. Covid-19 changed how often teachers observed, but the teachers reflected on their past experiences as well as their current experiences to provide a more in-depth understanding of peer-to-peer feedback at their school. After understanding the cases, data collection commenced.

Data Collection

Rocky Mountain School District and the Utah State University IRB office

approved all data collection from the teachers and principals and the protocol was followed as prescribed. After approval was granted by the institutions, all the teachers participating in both cases were emailed inviting them to participate. There was an electronic consent form included in the email which each participant signed. Data sources for this study were:

1. Individual semistructured interviews via Zoom
2. Electronic journal responses from writing prompts
3. Focus groups (without principals and one per case) via Zoom
4. Artifacts from peer activities (if any)
5. Individual principal interviews via Zoom

Interview record sheets were kept for all the interviews and focus groups (see Appendices C-H). Each Zoom call was audio recorded and then transcribed and analyzed. All the data was kept in a password protected university Box account following IRB protocols.

Initially, Case 2 had enough participants after the first round of emails. Case 1 did not. Case 1 had far fewer potential participants since the entire school was not engaging in the peer program. As a result, another email was sent to teachers in Case 1 with a gift card incentive of $25 to anyone who would participate. After the second email two teachers and the principal agreed to participate in the study.

Interview/Focus Group Data

I conducted all the semistructured interviews and focus groups to adjust questions based off the participants' responses. Each participant brought a different perspective which was anticipated previously. The interviews began with the principals to help provide understanding for what was happening at each school. Afterwards the teacher

participants were interviewed. The same semistructured interview protocols were followed throughout the teacher interviews but follow up questions were adjusted for each case study especially as apparent themes emerged. This flexibility allowed for greater understanding and depth of the participants' experiences. After the individual interviews, each participant joined in a focus group with the other participants at their school. At the conclusion of each individual interview the participants were given a journal prompt. After the interviews, there was one focus group for each case within a week of completing all the individual interviews. The focus groups were used to further understand the experiences of the teachers. Hennink (2014) describes one purpose of focus groups "is not to reach a consensus in the issues discussed, but to uncover a range of perspectives and experiences" (p. 2). The focus groups allowed for different perspectives to be uncovered and provided greater understanding as participants often used different language to describe a shared experience. The focus group allowed the researcher to tease out these differences within each case and across both cases. It might not have been possible to learn these differences or similarities with only semistructured interviews and journal responses.

To have greater reliability in these interviews, journal responses, and focus groups, questions were created by following an already existing question from *Teacher Sense of Efficacy Scale Short Form* (see Appendix B). Some additional questions were added to help with contextual differences and questions specific to this study. This form was selected for several reasons. First, the authors who created the scale are seminal authors and the scale is widely used in studies in the field. The scales language is also

more suited for elementary school teachers matching the participants who participated in the study. Last, the reliability of this scale is high and has an alpha .90 (Tschannen-Moran & Woolfolk-Hoy, 2001).

Principal Interview Protocol

Principals were the first group interviewed in order to provide context for the cases. Those interviews lasted between 45-60 minutes. It was mostly contextual, but the following questions were asked to each of the principals (see Appendix C).

1. Describe the peer-to-peer program that you have at your school.
2. What are the expectations you have for your teachers for the peer-to-peer program?
3. What is explicitly told to teachers about what is expected of them for the peer-to-peer program?
4. Why did you decide to do this?
5. Do you think it is successful? Yes or no? Do you have any evidence?
6. Is there anything that I haven't asked that would help me understand better what is happening with the peer-to-peer activities here?

Teacher Interview Protocol (Case 1)

The teachers were the next group interviewed. Each of the teacher interviews lasted 45-60 minutes. The questions were adjusted to reflect the three areas focused on the *Teacher Sense of Efficacy Scale Short Form.* The same questions were used for each interview, but some of the questions were adjusted during the interview according to the qualitative nature of this study. The questions by themselves cannot provide the understanding of the story which is the benefit of a qualitative study. Thus, the questions

were adapted for this qualitative study. The following were the questions asked during the semistructured interviews with Case 1 (see Appendix D).

1. Describe your professional background. How many years of you been teaching? How many years at this school? What grade-levels or subjects have you taught? How long have you been participating in the peer program at your school? Is this the only school you have done peer-to-peer mentoring at?

2. What has been your experience with peer mentoring? What has it looked like for you?

3. Please share your views about peer mentoring and feedback.

4. How much can you do to motivate or help students believe they can do well in schoolwork when have low interest in learning? How has peer mentoring and feedback influenced that?

5. To what extent can you craft good questions? Use a variety of assessment strategies? And provide alternative explanations when students are confused? How has peer mentoring and feedback influenced that?

6. Are there other pedagogical or instructional skills that peer mentoring and feedback has influenced? Explain.

7. How much can you do to control or calm a disruptive class or student? How has peer mentoring and feedback influenced that?

8. Are there other classroom management skills you believe that peer mentoring and feedback has influenced. Explain.

9. What aspects of peer feedback are most helpful? Why?

10. What aspects of peer feedback are least helpful? Why?

11. Please share any other comments or thoughts about peer mentoring and feedback.

Teacher Interview Protocol (Case 2)

The questions differed slightly in Case 2 since the way peer-to-peer feedback was applied was different at this school. The following were the questions asked during the semistructured interviews with Case 2 (see Appendix E).

1. Describe your professional background. How many years of you been teaching? How many years at this school? What grade-levels or subjects have you taught? How long have you been participating in the peer program at your school? Is this the only school you have done peer-to-peer observation or feedback at?

2. What has been your experience with peer observations? What has it looked like for you?

3. Please share your views about peer observation and feedback.

4. How much can you do to motivate or help students believe they can do well in schoolwork when have low interest in learning? How has peer observation and feedback influenced that?

5. To what extent can you craft good questions? Use a variety of assessment strategies? And provide alternative explanations when students are confused? How has peer observation and feedback influenced that?

6. Are there other pedagogical or instructional skills that peer observations and feedback have influenced? Explain.

7. How much can you do to control or calm a disruptive class or student? How has peer observation and feedback influenced that?

8. Are there other classroom management skills you believe that peer observations and feedback have influenced. Explain.

9. What aspects of peer observations are most helpful? Why?

10. What aspects of peer observations are least helpful? Why?

11. Please share any other comments or thoughts about peer observations and feedback.

Journal Response

At the conclusion of the interviews, teachers were invited to respond to journal prompts during the next week. The interviewer read through each question with each participant to ensure they understood what the questions were asking, so they could provide richer data. The participants responded to the questions provided by a Qualtrics

survey response. This journal response had the participants reflect on their experiences since they started peer-to-peer feedback. One purpose of the journal was to understand how peer-to-peer feedback affected teacher efficacy over time, but it was difficult to develop a precise baseline since many of the participants have been engaging in the practice for some time. It was also hard to give the journal prompts to the teachers throughout the semester because for many participants peer-to-peer interactions were an organic experience and not formal. Many participated in peer-to-peer feedback without knowing it, and it took specific questions for them to realize they were engaging in peer-to-peer feedback. There were many instances where teachers did not know they were engaging in peer-to-peer feedback when they were. For example, teachers visited one another for help on lessons without realizing they were doing peer-to-peer feedback according to the definition used in this study. The journal helped teachers reflect on their experiences to examine how the practice of peer-to-peer feedback influenced them in specific ways. The *Teacher Sense of Efficacy Scale Short Form* focuses on three areas of teacher efficacy, (1) student engagement, (2) instructional strategies, and (3) classroom management. Accordingly, the questions focused on those areas and took parts of those questions for the journal prompt. The journal had three prompts inviting the participants to reflect on their experiences (see Appendix F).

1. Reflect on your experience before peer mentoring, peer feedback, or observing. How has your ability to help students who show low interest or value in learning changed since beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence what you do today?

2. Reflect on your experience before peer mentoring, peer feedback, or observing. How have your classroom management skills changed since

beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence what you do today?

3. Reflect on your experience before peer mentoring, peer feedback, or observing. How have your pedagogical skills changed since beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence your practice today?

Focus Group Interview Protocol

The focus group questions were developed before the semistructured interviews, but additional questions were added after the semistructured interviews to help provide understanding for each case. A preliminary analysis was conducted after the interviews to understand what ideas needed to be clarified in the focus groups. Each teacher was asked to participate in the focus group. There was one teacher from Case 2 who volunteered for both the interview and the focus group but had a last-minute emergency and missed the focus group. This teacher was later contacted over the phone during member checking and verified the data collected from the other participants during the focus group. All other participants completed the interview, focus group, and the journal. Following Hennick (2014) the focus groups lasted about 60 minutes. The questions for Case 1 focus group with additional follow up questions included the following (see Appendix G).

1. What are the most helpful aspects of peer mentoring? Please explain why you see these as the most helpful aspects.

2. What are the least helpful aspects of peer mentoring? Please explain why you see these as the least helpful aspects.

3. If this was applied at different schools, what aspects do you find most essential and which aspects would you change?

Additional questions were used to clarify and understand the responses during the

individual interviews. Many of the questions from the interviews were asked again or differently to understand the experiences of the participants. The questions included for the Case 2 focus group are as follows (see Appendix H).

1. What are the most helpful aspects of peer observations? Please explain why you see these as the most helpful aspects.
2. What are the least helpful aspects of peer observations? Please explain why you see these as the most helpful aspects.
3. If this was applied at different schools, what aspects do you find most essential and which aspects would you change?

There were several other questions, but they were used in order to clarify or to understand the responses of the teachers during their individual interviews. Many of the questions from the interviews were asked again or differently to understand the experiences of the participants. The total time for each participant was approximately 2 hours.

Procedure and Sequence

This study followed the guidelines outlined by Yin (2018) for multi-case designs. The design phase is intended to establish the cases. This involved the principal to help give a clearer view of what each case was like to provide any data they might have had. The main data collection phase began with the individual semistructured interviews of the participants, their journal response entries, and then the focus groups. The last stage was the analysis phase. Analysis was first conducted for individual cases followed by a cross-case analysis phase. Table 2 provides an outline of the procedure and sequence of the study (a more detailed explanation of analysis follows).

Table 2

Sequence of Study

Activity	Description	Timeline
IRB	Obtained USU IRB approval Obtained school district approval	Jan
Selection	Invited Principals and Teachers to participate in the study	Jan-Mar
Principal interviews	Interviewed Principals. Gathered preliminary data for case description.	Feb
Individual teacher interviews and journal responses	Individual Semistructured Interviews and journal responses. Main data collection.	Feb-Mar
Preliminary analysis	First analysis conducted to identify emergent themes and adjusted questions for focus groups. Identified preliminary themes to clarify and triangulate. Invited outside researcher to help code for higher reliability.	Feb-Mar
Focus groups	Focus groups with individual cases. One for each school.	Mar
Analysis	Coded data and identified themes. Began individual reports and cross analysis.	Mar-April
Member checking	Shared results with participants and invited them to provide updates or changes.	Apr-Jun

Analysis Outline

As described previously, the researcher followed Yin's (2018) description for multi-case qualitative studies. First there was individual analysis for each case and then there was a cross-case analysis to find shared themes. Both cases followed a similar pattern and the process for both will be described before the cross-analysis. An outside researcher and I participated in the coding of the data to help strengthen the reliability of the analysis, although I was the primary coder.

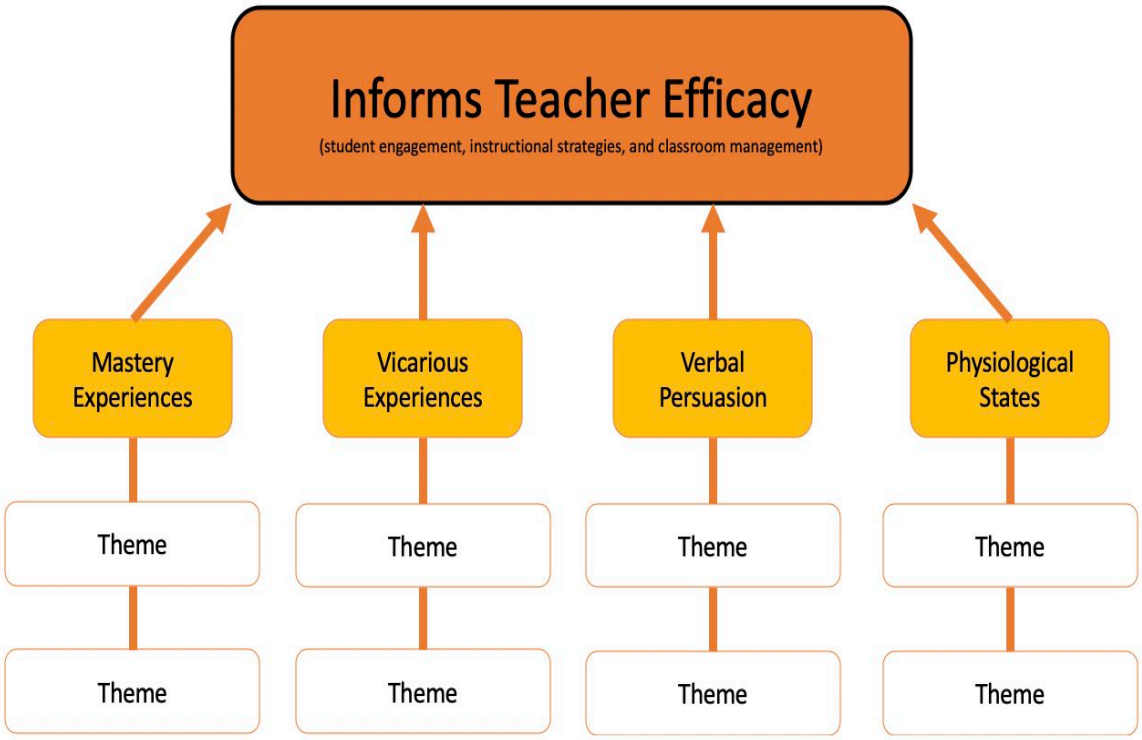
The main analysis occurred through reviewing the data provided from the individual interviews, journal responses, and focus groups. Miles et al. (2020) describe

first cycle and second cycle coding. First cycle coding primarily works with all the data and second cycle coding works with the data from the first cycle and combines themes and ideas from the first cycle while still analyzing the entire data. This process was followed closely, although themes began to emerge during the transcription of the data. After each case was analyzed individually, then the cases were cross analyzed, and themes were identified for the entire data for both cases. *A* priori codes were used to help understand how emergent themes inform self-efficacy.

This follows Yin's (2018) suggestion of "relying on theoretical propositions" (p. 168) and Miles' et al. (2020) suggestion that qualitative research often has themes which are driven by the theoretical framework. Therefore, after identifying the themes which emerged, the data were analyzed to discover if these emergent themes provided evidence to whether the practice informed self-efficacy through performance experience, vicarious experience, verbal persuasion, and physiological states. There were possible themes that could have emerged that did not align with the *a* priori codes. This is why the researcher first attempted to understand the phenomenon for each case without using the *a* priori codes. After the themes were identified, they were analyzed on how the practice informed self-efficacy using the *a* priori codes. Following previous research by Ridge and Longhurst (2020) here is an adapted image displaying the process (see Figure 2) which was eventually adapted in the results section to better describe the phenomenon. The figure is also adapted to take in account the questions that focus on student engagement, instructional strategies, and classroom management. This figure guided how the *a* priori codes were used to influence the themes found in the study.

Figure 2

Informs Teacher Efficacy



Thus, the first cycle coding began following the process above and with "In Vivo" coding or "short phrases from participants own language" (Miles et al., 2020) to help capture the essence of each participant's experience and eventually to understand each case. After the initial coding or first cycle coding, emerging themes were identified, first within each participant, then across the participants within each individual case. Miles et al. (2020) have said, "A theme is an extended phrase or sentence that identifies what a unit of data is about and/or what it means." The themes may or may not have used the words of the participants but helped the researcher understand the experiences of the participants in each case. This all happened with the *a* priori codes in mind.

The second coding cycle of the data combined ideas and phrases to themes.

During second cycle coding the researcher was still open to find new themes, not previously found, and evidence for the current themes identified. This process continued until sufficient evidence was found to understand each case adequately. Then the emergent themes were placed under the *a* priori codes (see Figure 2 and results section), to discover if these emergent themes informed teacher efficacy. Evidence was gathered to justify why each theme informed self-efficacy in the ways Bandura describes, which is why the *a* priori codes were necessary to answer the research questions.

Analysis of Data

After the themes were identified, evidence was gathered to provide meaning to the data. For example, an emergent theme that arose was that peer-to-peer feedback provided support. Data were analyzed on how that theme informed self-efficacy. Since I was the instrument and provided meaning to the data, I needed to find evidence which validated the interpretation I used. The data also showed how important the themes were. For example, there were multiple themes, but one theme dominated the data. Member checking and the participants' words and experiences were used to validate the results. After member checking some of the results were updated to better reflect the experience of the participants. Themes would have been included in this study even if it was unclear if they informed self-efficacy, but they all did in this study.

Validity

Miles et al. (2020) suggests using multiple sources of data and additional researchers to strengthen the validity of the data. There were several sources (multiple

individual interviews, multiple focus groups, interview records, principal data) which helped triangulate the data. These multiple sources came from multiple locations (two schools) and strengthened the arguments. This paper was shared with a doctoral committee and other doctoral students for input and feedback. To strengthen validity, this manuscript was also shared with the teachers and the principals for member checking and updated accordingly. An outside researcher was invited to help code the data and verified the themes which were identified in this study.

CHAPTER IV

RESULTS AND DATA ANALYSIS

This section will discuss the results and analysis of each individual case, followed by a cross-analysis. The multi-case study was deliberately chosen to strengthen the results of the study (Miles et al., 2020). Each case will be described in depth from the data and information from the principals and then each participant will be introduced. After the introduction of the participants, there will be a review of the coding process and the themes that emerged from the study and how these themes informed teacher efficacy. The discussion and implications of these findings will be explored more in Chapter V.

Case 1

The principal from Sunshine Elementary School has been there for the last seven years. At their school it is very important that teachers understand the mindset from a book that the principal likes called *Visible Learning* by John Hattie. Mentoring has always been mandated in some form from the state, but in the last 3 years the principal wanted to be a little more focused on helping new teachers to the school assimilate to the culture of the school. One of the biggest challenges he faced early on, as a principal, was onboarding new teachers, and the peer mentoring program with peer-to-peer feedback was introduced to help reduce the tension during this transition. Typically, he meets once a month with the novice teachers and their mentors. They also participate in a book group to help the teachers understand how research is guiding their decisions. This onboarding experience lasts about one year, and it is a very intentional practice by the administration.

To help encourage participation the principal gives the teachers a stipend for the extra time it will take to participate in peer-to-peer feedback, and it is a clear expectation he gives when he hires a new teacher. One of the reasons he keeps this program is he feels it reduces teacher attrition and helps provide support to teachers who are newer. Often the novice teachers to the school are also novice teachers to the profession. He also wants more collaboration and believes when teachers get to know one another, especially people outside their team, that it will help teacher growth. The peer mentors are selected by the principal. They are purposely outside of the novice teacher's team so the novice teacher can collaborate with another person who is not on their team. Their teams are decided by grade-level at this elementary school. This gives them added support and an added resource to help them adjust to the new school. One of the intended outcomes of this program was that other veteran teachers would begin to participate in observing other teachers outside their teams, but currently this is not part of school culture and others have not joined in. The principal is currently wrestling with the idea of introducing a formal peer-to-peer program to all the teachers to participate more in peer-to-peer feedback.

At this school, the mentors are asked to observe the teachers and give frequent feedback. The novice teachers have the responsibility to observe their mentor teacher and to learn from their teaching. The activities the mentor and novice or mentee engage in are negotiated between partners. Each partnership participates in different activities which is determined by what they need. The primary role of the mentor is to help the newer teachers adjust to the school culture which includes a certain level of good teaching.

During the interviews and focus groups, the researcher learned that this school does a lot of peer activities outside of the peer mentoring program with their individual teams. The principal was not aware of those outside peer activities. Throughout this study the participants shared how they worked with their formal peer relationships and how they worked informally with their team and other peers.

Participants

Initially, it was difficult to recruit teachers to participate in this study. The principal suggested in his interview that there should be an incentive. When asked why, he commented how teachers feel extremely overwhelmed with Covid-19 and the added responsibilities of online teaching. The first couple emails were sent without an incentive and no teachers volunteered to participate. After offering a $25 gift card incentive, two teachers volunteered and agreed to participate in the study. Out of the two participants, one had experience as a mentor (multiple times), and the other as a mentee. This was what the study required if there were only two willing participants. The two participants will be identified by the pseudonyms Crystal and Sasha. Table 3 will give a brief view to the participants followed by a more detailed explanation

Table 3

Case 1 Participants

Name	Educational background	Years teaching	Mentor or mentee
Crystal	Master's degree in education	18 years	Mentor
Sasha	Undergrad degree in Elementary Education	2 years	Mentee

Crystal

Crystal has been teaching for 18 years. For the first 15 years she taught first grade and then moved to fifth grade where she teaches now. She has been at her Sunshine Elementary for the last 6 years. She has been a mentor every year that there has been a formal program at her school (3 years). She has a master's degree in Education and is currently the team lead for her grade level. She has a mentee right now, but her mentee did not participate in the study. She only has the experience as a mentor but has experienced mentoring help from working with her colleagues informally. Her team has been the support she has needed throughout her career. She did not participate in peer-to-peer feedback formally at her previous school, so this was new to her.

Sasha

This was Sasha's second year. She recently completed being a mentee in the formal program provided by the school. She received her undergrad degree in Elementary Education. She is a fifth-grade teacher, and even though she was not paired with Crystal they are on the same team. When she first got hired, she did not plan on teaching for a long time, but peers have helped her want to stay longer in the profession. She had a good experience with her mentor, but she would not describe them as being close. She used her team and other peers more for help than her formal mentor.

Coding

Following the process as described previously coding commenced at the conclusion of the individual interviews. Initial coding was done as the interviews and

focus group were transcribed; this is to say the transcribing helped the researcher get an idea of some of the emergent themes. Themes naturally emerged as the data were being transcribed. After the transcription a thorough first and second cycle coding began. First cycle coding primarily focused on all the data. During this round of coding "in vivo" coding was used to capture the words of the participants. Using the participants' words, themes emerged. After a quick analysis of the themes identified in the first cycle, more themes emerged and were combined. Second cycle coding focused on combining themes from the first cycle while looking for additional themes missed in the first cycle. Another cycle through the data allowed the researcher to gather evidence to either affirm or change the themes which seemed to have emerged from the data. This cycle happened several times until the researcher felt confident that the themes represented the case. After the data were gathered, participants did member checking to help verify the data they provided.

Theme by Theme Analysis

Several themes were identified which are representative of this case. This section will discuss each theme and the data which supports the theme followed by a brief analysis. The next section will analyze if the data provides evidence for how each theme informs teacher efficacy. For Case 1 all of the themes had a positive relationship to peer-to-peer feedback, which includes their formal relationships with a partner and their informal relationships with their team. The themes which dominated Case 1 were *Resource, Improved Teaching, Joy,* and *Support.* Each theme will first be introduced with a table describing the data found from the transcripts and will be followed by an

explanation and direct citations from the participants.

Resource

Resource in this context means that teacher believed they got help from other people and sometimes that came through tangible physical resources. Table 4 will introduce the data for the emergent theme *Resource.* Both teachers felt like their peers were a resource in different ways. Sasha liked her mentor teacher and felt like she received help from her even though she relied on her team more. The following describes one of the experiences she had with her assigned mentor,

> I did go to her once to…ask about visible learning stuff, and she gave me really good options for what to do, to…track my math proficiency scores. So, I did get a couple of good resources from her…

Table 4

Case 1 Theme: Resource

Theme	Participant	Data
Resource	Crystal	• Her perspective as a mentor was to be a resource of help to her mentee.
	Sasha	• Went to assigned mentor to get good materials or knowledge. • As a new teacher she knew that she had different people to help her with different questions, whether that was her assigned mentor or team. • Her co-workers were a resource to her because they had knowledge and experiences she did not have

She also shared how she had a lot of questions as a new teacher, but she felt school administration was able to provide resources to help her.

> …it was nice. I felt like it was okay here's all of your resources as a first-year teacher. Here's your instructional coach, here's your mentor, here's your team lead, and then it was kind of more up to me to…pick and choose who I needed.

She reiterated this idea when we discussed some of the possible unintended consequences of the peer mentoring program, "…there's somebody I can go ask questions." For Sasha, her team was more helpful for her than her assigned mentor, but she valued having somebody outside her team to help her. It was clear in her body language that she appreciated her mentor and felt like it was another resource that she could use whenever she needed help. She went to her mentor because she heard she was good at gathering data and she used what she taught her continually. It was not a burden but a resource. She also has a team that was extremely supportive.

Crystal had a different experience than Sasha because she was a mentor, but she still felt like it helped her whether it was help from her mentee or a team member. She wrote this in her journal response describing how she helped students who show low interest in learning,

> It was always helpful to get someone else's perspective. Whether you are getting the advice, or giving it, it can help you remember your training, or give you something else to try.

In her mentoring relationship she described herself as being a resource to her mentee when she said,

> It's definitely a balance in between, what do they need, what you know…what's going to be more beneficial for them to know, report cards are coming, help them understand that type of stuff as a mentor. I know what's coming and what they need to know…

It was clear that they both viewed this relationship or program to help teachers with what they needed. Crystal wanted social emotional support which will be described more later, and Sasha wanted tools to help her as a brand-new teacher. There are many demands placed on teachers and this peer mentoring program was another resource for these

teachers to utilize with all they have been asked to do. Their team members also helped. Sasha and Crystal both felt that their teams helped much more with curricular activities. Their peers were a resource to help them in their profession, and this helped the teachers improve their teaching.

Improved Teaching

This theme, improved teaching, means teachers believed their teaching improved through peer-to-peer feedback. Table 5 will introduce the data for the emergent theme *Improved Teaching.*

Table 5

Case 1 Theme: Improved Teaching

Theme	Participant	Data
Improved teaching	Crystal	• Reported team helped tremendously with improving teaching. • She improved instruction as mentor because she needed to be an example to her mentee. She was reminded of skills she needed to demonstrate.
	Sasha	• Explicitly said observing others and being observed helped improve her teaching. • She shared specifically how she improved her assessments because she observed her mentor.

Improving instruction was one of the most cited benefits of peer-to-peer feedback for both teachers. Crystal believed that her team helped tremendously with improving her teaching but did not believe she gained much observing as a mentor. Even though she did not believe it helped improve teaching she contradicted herself when she stated:

> …that makes me step up my game and remember oh yeah, I remember when I was a first-year teacher these things were important. And now that I'm in my 18th year those things are still important to have the basic foundation…remember, go

> back to the beginning and remember those basics…as far as my teaching practice, it just makes me more aware, like when they come and ask me questions and I'm like, oh yeah, I have that knowledge and I don't always use it.

Later, during the interview she commented again how this program should make her a better teacher, but it does not. Then it was followed by her saying,

> Now I do feel when I have gone over and there's things that she does that I noticed are wrong that I do too...so I come back in and you're like, oh yeah I need to, I need to remember that I need to do these things too…

She could not see how it was improving her instruction, but she frequently commented that it does help her remember to do certain pedagogical practices. After the interview when asked about classroom management she said, "As a mentor, always remember someone is watching you or seeking your expertise. Knowing this keeps me focused on 'being on my word,' actually doing what I say." It was clear the practice reinforced her teaching.

Sasha was the opposite to Crystal as she clearly believed that peers made her a better teacher. In her journal response she responded positively of how peer interactions helped with her instructional skills by saying,

> They have been greatly affected by my team members, who I interacted with on much more of a regular basis. My daily/weekly conversations about management, data, and instructional strategy have shaped my current classroom. Observing the more experienced team members on my team has helped me improve my Tier I instruction.

Although this is not from her formal relationship, it is clear that she believed that her peers helped improve her instruction. She did mention that one of the best ways her assigned mentor helped her was through assessments.

> I think in the assessment category is where my assigned peer mentor had the most, or like helped me the most. Because she introduced a new way of having

> collective efficacy as a classroom in terms of their math scores instead of just me seeing how they did…

This was one of the ways she received help. She also described how she always came "…away with pages of notes" after observing her peers to help improve her instruction or management. Her peer mentor also gave her confidence as a teacher because she provided positive feedback after an observation. "I felt really good that other teachers, not just my team or nor just my admin had seen me teaching and noticed good things."

Crystal probably had the clearest example of how peers informally helped improve her instruction when she said,

> We have a member on our team, and she, her brain works different than mine. She's very analytical. She sees patterns. She looks at data and it means something different to her than it does to me personally. And so having her question my teaching practices and say well why did you teach it that way…And so I've been able to definitely glean from her. And where my, you know, 18-19 years of teaching have failed me in that she's been able to, you know, fill that void for me.

In short, both teachers believed that peer-to-peer feedback helped them immensely with their teaching whether it was their formal mentoring relationship or another teacher they worked with.

Joy

The theme joy means the teachers were able to enjoy their jobs more and have increased job satisfaction. Table 6 will introduce the data for the emergent theme *Joy.*

Teaching can sometimes be stressful and difficult for teachers. In the experiences of Sasha and Crystal, both felt like peers and the peer mentoring program helped make their jobs more enjoyable and made them happier. It was clear that it helped make their job satisfaction higher. As stated previously, Sasha felt happy that other teachers outside

Table 6

Case 1 Theme: Joy

Theme	Participant	Data
Joy	Crystal	• The relationships from collaboration made her enjoy her job more. • Rewarding to be a mentor
	Sasha	• Increased joy because she felt validated by others.

of her team and administration could come and see her and validate her teaching. "It was very encouraging…" Throughout all of her interactions she was happy about how she had resources and support. As stated previously, she knew exactly the resources she had as a new teacher. Sasha even mentioned that this support made her want to teach longer. Sasha shared how peers made her feel like she was doing ok because when she observed other teachers, she felt like she was not alone in her struggles. She said,

> It also helps when I leave the classroom and go into someone else's classroom. I feel like more of a team with all the teachers in the school…everyone is doing something similar, and everyone is…in the same boat. So, it helps me feel more connected too.

Crystal has a very warm personality and always seemed to be happy, but it became clearer that those she worked with make a difference for her job satisfaction. At one time she described how she had a toxic team and requested to change grade levels because of the effect it had on her. She did not believe she could continue working if she was not in a happy environment. Most of her career minus that one year with a toxic team, she felt like her peers have kept her moving and helped her. When she was asked what she believed the most helpful parts of the peer mentoring program were, she replied, "I think it's the relationships…they can come to someone else and have that so the

relationships I think helps a ton. I like that part, especially because I get to know new people on the staff. That's a fun part for me." It seemed to be very rewarding for Crystal. It was evident that she felt a strong responsibility towards taking care of those she mentored and that made her happy. "It's definitely a benefit to watch them grow from that very day that they survive, and then, you know, all of the firsts…" She liked doing things for birthdays and even discussed how she was excited to celebrate the birth of her mentee's child. For her, it brought joy to make her workplace more of a family. It might be unique to her personality, but this was very true of her experience.

Support

The theme support means getting help the way teachers wanted. Teachers were able to have support or help emotionally, professionally, socially, etc. Table 7 will introduce the data for the emergent theme *Support.*

Table 7

Case 1 Theme: Support

Theme	Participant	Data
Support	Crystal	• Removed isolation. • Gave the social and emotional support she desired. Less about teaching more about support for her.
	Sasha	• Received support in the way she wanted. She cared more about improving teaching and got that help.

Overall, the largest theme that was continually emerging was support. This theme manifested itself in different ways, but it seemed appropriate to keep it as one theme. One main way the theme support manifested itself was through emotional support. In her

interview, Crystal shared how her assigned mentee was someone that she could express her emotions to without feeling isolated. She said,

> I think for me it's just someone to check in with every day, and then the conversation goes you know so hey how did it go today? Did you survive another day? How was this kid and this kid that I know is driving you crazy? And then when the question is reciprocated then all of a sudden, I have someone else that hasn't already heard me complain because they are not on my team. So, I have an extra (person), yes you understand.

During the focus group Crystal reiterated this idea by discussing what the mentoring program did for her and others.

> They can go to their team and ask the teaching types of questions, but the way I forgot what we do for this? Or, can you just remind me about this or where do I go on the computer to find this thing? Those are the types of things that, you know, how was your weekend? How are you feeling? Are you feeling burnt out? Are you feeling overwhelmed? I am too and I've been teaching forever…

This type of interaction is what dominated Crystals' experiences in the mentoring program. It seemed to be far less about the mechanics of teaching and far more about the emotional burden that teachers face day in and day out. It became apparent that it was the support that an administration could not give her, but she craved. She explicitly stated that was her role. When asked what she felt like she needed to do as a mentor, she said, "In my opinion to support." She wanted to give what she felt like she was receiving.

Sasha described it differently, but it seemed to be the same experience for her. She said it was nice that everyone was "in the same boat." During her interview she had less confidence than Crystal but felt like her team and the support she was receiving from her peers gave her help that might be hard to get elsewhere. She said,

> I think if my team changed and it was no longer…supportive in…all the ways like socially, emotionally, teaching wise, I think I would definitely be looking for somewhere else I could turn to…

In fact, during the focus group she made it seem that without the help she was receiving from her peers that she would not continue in teaching. She said,

> Even me and my first couple years I was kind of thinking…, this isn't where I see myself for a long time…I want to consider other options but because of my, I have a really supportive team…I feel like it makes me feel more motivated to stay…

One humorous part of the focus group was in the middle of the focus group a teacher came in and interrupted. We had to take a break because Crystal felt like she had to help this other teacher. It was the teacher she was mentoring. They put a premium on helping their peers.

It became apparent that the teachers received the support that they needed. Sasha had different needs as a first-year teacher than Crystal who had been a teacher for over 18 years. They also had vastly different personalities which explains why they handle their formal peer relationships differently. Crystal expressed how she did things like birthdays and parties and Sasha talked about how she felt like she had people to help her. They both did things that helped and benefited them, but it was different according to their needs and personalities. Sasha wrote this in her journal response about how peers affected her pedagogical skills. She wrote,

> My overall pedagogical skills did not change from interacting with my assigned peer mentor. They have been greatly affected by my team members, who I interacted with on much more of a regular basis. My daily/weekly conversations about management, data, and instructional strategy have shaped my current classroom. Observing the more experienced team members on my team has helped me improve my Tier I instruction.

She mentioned that if she did not have the team she had, she would have observed her formal peer mentor more. She would have relied more on the peer mentor, but it became

clearer that she felt like she used her mentor in the ways she needed, and it was not a burden. The formal relationships filled gaps they, the teachers, were not receiving in other places, and it was flexible enough for teachers to negotiate the relationships they needed to feel successful in the classroom. They both were supported in a way that was helpful for them.

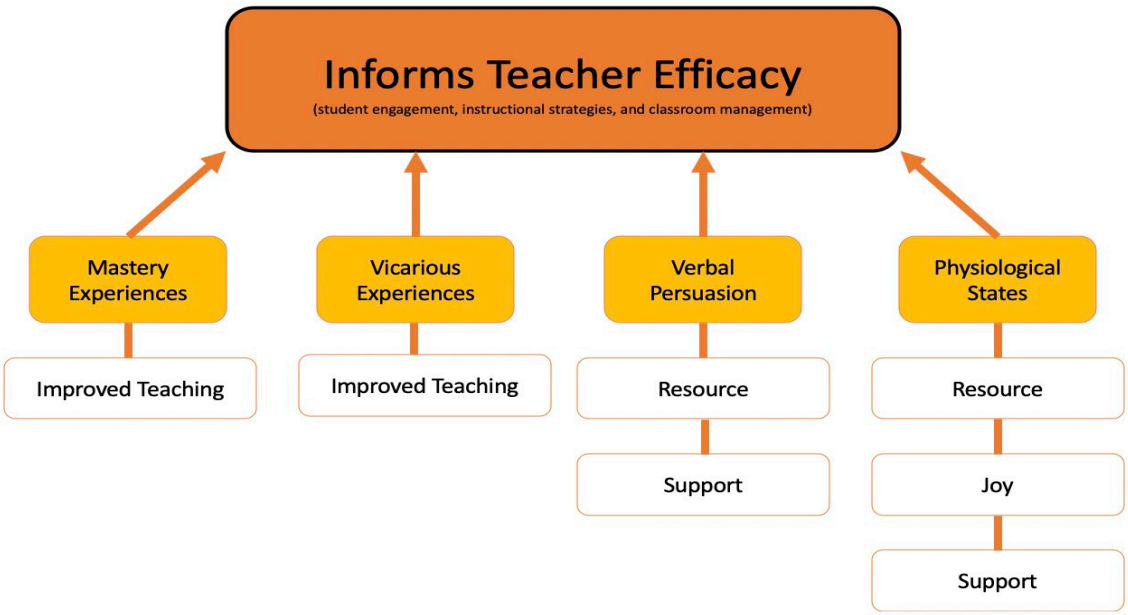
Informs Teacher Efficacy

At the onset of the study, it was unclear if all the themes would have sufficient evidence to support whether they inform teacher efficacy. After the analysis it became evident that all the themes inform teacher efficacy in Case 1. The researcher deliberately broke up the results in two sections to ensure the themes were truly representative of the data without being influenced by fitting the data to answer the questions the researcher wanted. Thus, this section of the manuscript is to understand how or if the themes inform teacher efficacy positively or negatively. The interview questions during the individual interviews, focus group, and journal responses focused on teacher efficacy and were based off *Teacher Sense of Efficacy Scale Short Form.* As stated previously, this form focuses on three specific areas of teacher efficacy which are student engagement, instructional strategies, and classroom management. Without using efficacy scales, which did not fit the purpose of this qualitative study, it was hard to know how high or low each teacher's sense of efficacy was from peer-to-peer feedback. Generally, for each category from the *Teacher Sense of Efficacy Scale Short Form* each participant had positive self-beliefs about their capacities in each category. Using the data to guide the study, the themes became clearer and as described above informed teacher efficacy positively or

negatively. All the themes *Resource, Improved Teaching, Joy,* and *Support* inform teacher efficacy positively from the data evidence provided above. Figure 3 provides an image of each theme and how it informs teacher efficacy, using the *a* priori codes listed for this study. An explanation of why or understanding the story behind the figure will be explained thereafter. Some of the themes informed teacher efficacy in multiple ways so they were placed in two locations in Figure 3. The justification for each theme will now be described.

Figure 3

Case 1: Teacher Efficacy



Resource

This theme informed teacher efficacy through physiological states and verbal persuasion. The teachers stated that it was helpful and made life as a teacher less stressful, which helped tremendously with the emotional burden placed on these teachers.

They could have physical resources for teaching a particular lesson or gathering data and other teaching related activities. Peer observation was informed with verbal persuasion because of the collaborative nature of the practice. They used each other's encouragement or ideas to teach. Sasha felt encouraged when she talked to her peers and felt like she could continue teaching. As described previously, those positive words are one of the reasons she felt like she could put forth more effort and stay in the profession.

Improved Teaching

As shared by both participants they both felt like they could see improvements in their teaching. Crystal had to demonstrate her teaching skills to her mentee and was reminded of skills she needed to maintain. She was able to see her teaching improve by being reminded of the small things. She did the small things better, so she was able to have better teaching experiences. Sasha was a little more specific. She was able to see specific skills, which informed her teacher efficacy through vicarious experiences because she could see it, and she was able to implement the skills and see them work. She shared about viewing classroom management skills and then having success implementing those skills. Sasha also shared about data collection. She was able to talk about the importance of gathering student data and then she was successful in doing so. Thus, improved teaching informed teacher efficacy positively through mastery experiences and vicarious experiences.

Joy

This theme informed teacher efficacy positively through their physiological states.

Both teachers discussed how the peer mentoring program and working with their peers helped them enjoy their jobs more. It made all aspects of their teaching better because they wanted to be there. Crystal loved the relationships and felt like it created a safe place for her. Her school was her second home. It might be hard to pinpoint how much more joy can help improve teaching, or classroom management, but a teacher who has more joy in doing those things is more likely to do them well because they will have higher teacher efficacy. Thus, a positive physiological state helps inform teacher efficacy positively which make more effective teachers.

Support

Both teachers in this case had different needs in teaching. Support helped inform teacher efficacy positively through verbal persuasion and physiological states. Support informed teacher efficacy through verbal persuasion by increasing teacher collaboration. Crystal and Sasha both mentioned how their co-workers helped encourage them. As shared with some of the other themes, their physiological states were improved because they did not feel alone. Isolation was removed. They both obtained support the way they wanted to be supported. Both teachers were able to be happier through the support they received and thus improved their physiological states.

Case 2

When the principal arrived at Rocky Ridge Elementary 6 years ago the school was not participating in peer-to-peer feedback (at least not formally). He was previously employed by a school district where his role was to help struggling schools. According to

the principal he attempted to make all school decisions by following current data. This is what encouraged him to start peer observations at his school. He had some prescriptions for their peer observation program, but he allowed teachers to observe who they wanted. The specific instructions were limited to number of observations he wanted them complete and giving feedback. Team leads helped direct teachers to other peers who might be helpful for them according to their teaching strengths and weaknesses. Typically, the low-bar expectation was four observations a year, but he believed through anecdotal experiences that teachers observed more. Other participants in the study shared that peer observations were happening more than the principal had assigned. He is a firm believer that peer observations have made and will continue to make a difference. He said this about his motivation in starting peer-to-peer observation when asked,

> …somebody will be struggling with classroom management, and I would say, you know, have you ever observed this teacher? They would say no, I've never even seen her teach. I have no idea. I would try to set up something for them, but just that idea that they had never seen some of these master teachers teach before was worrisome to me. And they want to get feedback from me on how to fix something that I probably wasn't good at anyways when I was teaching, and now it's been…like 12-13 years since I've been in the classroom teaching.

One key aspect to the success, in his opinion, was the culture. There was a culture at the school where teachers wanted to observe other teachers and did not mind being observed. This made peer-to-peer feedback successful at his school, and he did not believe it would work otherwise. The culture might also be the way it was because of a unique strategy he used as a principal. He observed nearly 20 teachers for five minutes or more each day. This allowed him to see his teachers multiple times a week and he believed he had a sense of what was happening in each classroom. This has also created a culture where

teachers expect to have other people in their classroom observing and has made peer-to-peer feedback easier for the teachers. He gave his teachers the liberty to ask him to leave if it was a bad day. He believed this has made it safe for teachers to have each other in their classrooms to learn, and was paramount to what he wanted in his school culture that,

> we understand that to get effective, you know, efficient learning kids, our teachers have to be effective in what they do. So, everything is focused on improving the teacher so they can focus on the kids and do a better job.

When asked what evidence he might have that motivates him to continuing this practice he referred to his low retention rate, where he only had to hire one new teacher last year, and student test scores. The students have outperformed their demographic in test scores and were outpacing the improvement by the state, which was an indicator to him that what his school was doing, worked. Before he arrived there, the school was below average in test scores and in state improvement with comparable schools. He was quick to say that their performance was not limited to peer observations, but he believed that it helped. Thus, there was evidence from the test scores that the culture and their focus on peer-to-peer feedback was positive for students.

Last, this school focused on observations and the principal tried to limit the amount of feedback teachers provided. Teachers were simply there to observe and learn strategies for their classrooms. This was also part of the culture where teachers did not have to battle other peers' opinions of them unless it was their team lead. Their team lead provided feedback as they worked with their teachers.

Participants

Besides the principal, there were five teachers who were willing to participate in

the study. They were recruited through a simple email inviting them to share their experiences of peer observations. The five teachers that participated in the study will be identified by the following pseudonyms Kylie, Jessica, Alyssa, Henry, and Kepler. Table 8 provides a quick description of the teachers, followed by a brief explanation of each individual teacher.

Table 8

Case 2 Participants

Name	Educational background	Years teaching	Team lead
Kylie	Physics and Spanish teaching minor	8 years	No
Jessica	Alternative route to licensure	3 years all at this school	Yes
Alyssa	Undergrad degree in Elementary Education	11 years with last 5 at this school	Yes
Henry	Master's degree in Athletic Coaching and plus 37 beyond masters	14 years all at this school	Yes
Kepler	Alternative route to licensure	3 years all at this school	No

Kylie

Kylie has been teaching for about eight years. She teaches fifth grade in the dual immersion language program and has been at this school for 4 years. She received her undergraduate degree in Physics and a received a minor in Spanish Teaching. Shortly after she graduated, she became a Physics teacher for 3 years and then taught in Ecuador for 6 months. She then took a break from teaching (approximately 10 years), but she eventually started helping at her current school as an aid where her children were attending. She helped all different grade levels and was approached by the principal about teaching fifth grade when they struggled finding a Spanish Dual Immersion teacher.

Kylie only needed to complete two extra classes to be qualified in the state she resides. She has enjoyed teaching that grade level, and said, “I’ll be honest with you if he (the principal) tells me to go below fourth grade, I’ll say sorry I quit.” She felt comfortable teaching in her content and did not want to change.

Jessica

Jessica is a kindergarten teacher and is in her third year. She began as an aid at the school because she is the principal’s neighbor. After a few years, the principal told her she would be good at teaching, and she got hired and began her ARL (alternative route to licensure). Her background was in social work and in pre-school before coming to the elementary school. She is the team lead but has limited experience observing her team because of the restrictions during Covid-19. Before being hired the principal established clear expectations that she would observe often, especially as an ARL. She has enjoyed observing during her time at that school.

Alyssa

Alyssa has 11 years of teaching experience. She started teaching second grade and then moved for a few years and taught preschool for a head start program in the state where she lived. She took a 14-year break from teaching before she returned to teaching elementary school. During her break, she worked for a local university and did observations. She said, “I was probably in at least 100 schools and all I would do is collect data on what was deemed as best practices.” She has been in her current position as a fourth-grade teacher for the last 5 years. Five years ago, 5 days before school started,

the principal asked if she would come back to teaching. She accepted and now enjoys being back in the classroom and in the school where her children attend.

Henry

Henry has been teaching for 14 years in the sixth grade. He is the team lead and team teaches with Kepler, who also participated in this study. He has a master's degree in Athletic Coaching and has graduate work beyond his master's, plus 37, which he described as "equivalent to a doctorate." He was the only teacher who understands the condition of the school before their current principal because he was there. He had experiences before the school did peer observations and after. He was kind of known as being a teacher who played with the kids frequently, from his own admission. For example, he was late to our interview because he was outside playing sports with students. It was clear from the focus group that he has earned the respect from his peers.

Kepler

Kepler has been teaching for 4 years. His first 2 years he taught on the English side of the Spanish Immersion Program. He received his degree in behavioral science and thought he wanted to be a school counselor. After working as an aid at the school he decided that he wanted to teach and began his ARL and was hired. He team-teaches with Henry and has a set time where he observes Henry teach Math. He has a great working relationship with Henry. He enjoys his job and says, "I love teaching." This is the only school he has worked for.

Coding

The same process from Case 1 was followed in Case 2, but there was an outside researcher who helped code the data. At the conclusion of the second cycle of coding the primary researcher and the outside researcher discussed the themes identified and came to a consensus. In fact, although each researcher might have called the themes by different names, there were no contradictions between the coders. It is also important to note that one of the participants missed the focus group. During member checking (a phone conversation sharing the data from the focus group), she verified the experiences of her peers and said the data represented her experience.

Theme by Theme Analysis

There were many themes which emerged throughout the coding process in Case 2. The teachers were overwhelmingly positive of peer observations, but there was one theme which reflected the difficulties of the practice. The positive themes which emerged were *Safety/Culture, See and Do, Happier, New Ideas, Improved Teaching,* and *Support.* The only theme which could be negative, which will be explained below, was *Classroom*. The evidence for each theme will now be explained. As with Case 1, each emergent theme in Case 2 will be introduced with a table, followed with a more in-depth explanation of the data.

Safety/Culture

Safety/Culture in this context refers to the culture established at the school by the school administration and by the teachers. Teachers felt comfortable being themselves

and were not afraid. Teachers also bought into the practice of peer observations. Table 9 will introduce the data for the emergent theme *Safety/Culture.*

Table 9

Case 2 Theme: Safety/Culture

Theme	Participant	Data
Safety/Culture	Kylie	• Entire focus group unanimously agreed they felt safe.
	Jessica	• Expectation when she was hired was to participate in observations.
	Alyssa	• Culture was already in place, so she just did it. • There was a culture of safety where nobody feels threatened.
	Henry	• Teachers buy-in was essential
	Kepler	• Culture was there so there was no anxiety during observations.

The school administration set clear expectations that observations were part of what the teachers were expected to do at their school. The principal ensured that all new hires understood this expectation. Jessica shared that when she was hired, she was told that this was part of her job as a teacher, and she was immediately observing. It was just part of what they did at that school. Alyssa described how the culture affected her,

> …because that was the culture for the last three or four years, even in a year like this…I could walk down the hall and did just the other day I saw a peer teaching math and I knew they were still on fractions, and I just sit in the back for 5 to 10 minutes and walked out and got a few…tips…

Alyssa loved teacher observations and has felt sadness that she has not been able to observe as much during Covid restrictions. She hoped to be able to observe much more in the future even if it was limited this past year. Part of the culture she discussed, and other teachers mentioned, was how the principal was constantly in the classroom. He observed

most teachers each day. Observations were not high-stress and allowed the teachers to be themselves. During the focus group I mentioned how I heard the principal sometimes ate cereal in their classes and they all laughed and spoke over each other how this was how they do things there. Alyssa said this during her interview,

> so that's something we do here easily…nobody cares if you walk in and nobody stops the class. That culture was put in place with our principal of him walking in and other people walking in and our students don't stop for that because it's not strange for them…I think it really only works in a school if you've got a principal that creates that culture and also that safety…

She also said in the focus group, "I think it's all culture, or it doesn't work…" Kepler also shared this idea in the focus group and others in the group agreed with him. He mentioned how it was not common to have an admin team doing what theirs did. He said it helps,

> establish that culture…its doesn't seem like that's very common so I think it would seem like teachers would get a flood of anxiety, if they weren't even used to administrators coming in and all of a sudden, their peers started coming in and observing them.

Henry has taught at the school a very long time and he shared how the culture was extremely important and "having teacher buy into the fact that they can actually help you." He did not feel that the culture was there with his previous administration and the new administration came in and changed it. He made it clear that the only reason teacher observations worked the way they did at their school was because, "…it goes back to the teachers that have bought in. I have." During the focus group he complimented his peer when he said, "he wanted to be there. He wanted to learn. He was invested…" Consequently, he believed this peer improved through peer observations. I asked the group about the culture and if it helped them feel like "you don't have to put on a show?"

and the entire group said, “yes” in unison. The culture at this school was unique. It was a culture of safety and trust which has been cultivated over the last few years which made peer-to-peer feedback work the way it did. Peer-to-peer feedback appeared to contribute to the warm culture at the school. The evidence suggests that the culture the principal created has been positive for the teachers.

See and Do

This theme means a teacher was able to observe an educational practice and immediately apply it in their teaching. Table 10 will introduce the data for the emergent theme *See and Do.*

Table 10

Case 2 Theme: See and Do

Theme	Participant	Data
See and Do	Kylie	• Observing gave her strategies to apply now.
	Jessica	• Applied strategies she saw in one observation, long after the observation. • Better than being told about a skill is seeing it.
	Alyssa	• Immediately applicable when you observe.
	Henry	• Seeing it is better than hearing about it.
	Kepler	• Learned strategies of how-to classroom manage through observing.

Throughout the entire study teachers frequently commented on how teacher observations allowed them to see a skill and put it into their teaching practice. Many teachers believed that this practical training was much more meaningful than anything they have done in school. Jessica shared, “I went and watched a second-grade teacher and

I still use some of her things that she did in class….” Even when it was not what would typically be defined as a good observation or good teaching, she still felt like she learned. She said,

> …it kind of saves you some trial and error by watching someone…ok…I’m not going to do that, but I like this part of it. So, I’m going to take this and do this. It kind of gives you ideas of how to do it too.

For Jessica it was about seeing a skill instead of just reading or hearing about it. “I feel like the peer observations help more than if she were just telling us how to do it.” Alyssa felt the same way and not only benefited from observing and seeing a skill, but she appreciated that she could apply new skills immediately. She said,

> I’m gathering immediate examples of things I can apply within the day or week. That’s probably my favorite thing about peer observation is that it’s immediate for me and it’s like I learned something quick. I don’t have to go process the whole thing or make a bunch of copies…that’s probably number one. I’m just adding more tricks to the trade type thing; watching somebody do your craft.

This held true for experienced teachers as well as novice teachers, but it seemed to be even more important when a teacher is new to a grade level, new to the profession, or returning to the profession. Kylie was new to teaching younger grades and struggled with classroom management and then she saw a simple strategy. She gave the example of pair then share. “I had no idea what that was until I went to observe somebody…” She saw value beyond the help she has received from formal professional development. She said,

> I could go to school, yes. I could practice, yes. I can learn from a classroom and a teacher, but it’s different than observing actually somebody doing it with the students and seeing their reactions as well…I’m still able to do it on my classroom because I observed other teachers here. I was like oh yeah. Okay, that makes sense.

In her journal she reiterated this idea when she wrote, “Seeing other teachers do what

they do best in the moment gives me more 'tricks of the trade' to put in my own 'toolbox' for teaching my students…I can immediately use that in my class without prep." This highlights the idea that seeing skills felt extremely helpful for these teachers. Kepler was a newer teacher and said this in his journal that was like the other teachers. He said, "Observing how my peers implement classroom management has allowed me to realize what behaviors and procedures are essential for maintaining a well-managed classroom and which ones are not." This was a teacher who benefited from seeing things more than just hearing or reading them. Henry, who had been a teacher the longest among the participants said,

> To say that you do something is one thing, but to show that you can do it is another, and I think that's what peer observations can do for you or someone…it's just like a good teacher not only has the kids here, but also do, and that's how it sticks and to be a better teacher that's what you need to do…

It did not seem to matter how long a teacher has been teaching. Teacher observations allowed these teachers to see what they could do in their classrooms. It is as simple as seeing, then doing.

Happier

Teachers were literally happier because of peer-to-peer feedback. Table 11 will introduce the data for the emergent theme *Happier.*

Teaching can be a very demanding profession and at times can tax the emotional stamina in teachers. It is important to note that this study was done during the second semester of a Covid school year. The teachers had more duties than in years past. Despite these challenges, teachers often described how this practice helped them enjoy their

Table 11

Case 2 Theme: Happier

Theme	Participant	Data
Happier	Kylie	• Made happier. • Observing others was one of the reasons she was still teaching.
	Jessica	• It was harder this year not observing as much because of the pandemic.
	Alyssa	• Observations motivated her. Seeing other teachers made her more excited.

profession more. The reasons varied, but it was still a consistent theme throughout.

Jessica described the impact peer-to-peer feedback had on her and how she missed it because she could not do it as much during Covid, "Even this year not doing it has been hard because I feel like the last two years, that's where I got most of my ideas….it would be hard for me to come up with a different way…" She seemed to feel more restricted because of the pandemic but other teachers were able to observe more. Alyssa enjoyed watching other teachers do what they do. She liked seeing good teaching and said it, "motivates me to see somebody else doing their skill really well too." It was something that brought her a little more perspective and made her want to be better. Alyssa was very explicit in the way peer observations made her feel happier. She said,

> I mean, I love what I do and I wouldn't want to do anything else…I think just seeing other teachers enjoy it sometimes reminds you to enjoy it and not get bogged down in what our district or state or federal level is telling us or testing or sometimes we just have to step back from that. It can be a job…you can get sucked into the negative things. There's enough to be negative about. There always will be…but sometimes just seeing somebody enjoy what they're doing is like okay, this is fun to watch.

As she said this her body language reflected how peer observations made her happier and

how observing others almost seemed relieving to her. Kylie felt like it made her want to stick with the profession. It made her feel like it was something she wanted to continue. She said, "…this is the reason why I'm still teaching is because I was able to observe other people and realize, how they're doing it so I can become better as well." It might seem like the practice could add anxiety but from these teachers they could see how it helped, and that made work more enjoyable for them. Most teachers want to be good teachers and the teachers in this study all felt like this helped them improve. Henry had more responsibilities as a team lead and had an obligation to help those he was leading. He observed those on his team often and tried to help teachers on his team. He wanted them all to be successful and described observations from peers this way, "it's a little less stressful having me come in versus admin…" A key takeaway was the stress-free environment that peers brought. In short, this practice was very helpful. To conclude, Alyssa shared these ideas during the focus group. She said,

> And that's kind of how I feel about teaching. If I see somebody teach really well I'm like I want to go teach. And if they suck at it, then I guess I want to teach too because to do it differently. But I don't know. I feel excited when I've seen a good, better part of a good observation.

After she said that the group nodded in agreement. Peer observations helped teachers and made them happier and improved their emotional states as teachers.

New Ideas

Teachers were able to learn new ideas for teaching by observing new teachers. This is what the theme new ideas represents. Table 12 will introduce the data for the emergent theme *New Ideas.*

Table 12

Case 2 Theme: New Ideas

Theme	Participant	Data
Happier	Kylie	• New ways to do things.
	Jessica	• More ideas because teachers get stuck in their own routine.
	Alyssa	• Observed more examples.
	Henry	• Learned how to do things better.

These teachers all valued the new ideas peer observations provided. This theme is different than the theme see and do because this theme focuses exclusively on new ideas. The previous theme was about observing a skill and being able to do apply the skill in class. This theme focuses on how teachers sometimes needed new ideas as they taught because they often got in a rut using the same strategies repeatedly. Jessica described it this way when she said,

> New ideas for the monotony. Right? So a new idea for letter naming…because sometimes you do the same thing so much, you can't get out of your box until you see something or watch someone else. And it might not be copycat of them, but it triggers an idea of how to do something different.

Alyssa had similar thoughts as Jessica. She said, "You're catching more examples. You're just building a bigger file to pull from…" and during the focus group she repeated this idea when she said, "I think one of the best things is just getting the ideas that come on the spot that you can immediately use…" Kylie described her experience when she said, "Just coming up with different ideas or ways to do it, learning new methods. I think it's awesome to me. Really it's been better than going to school." New ideas should come with collaboration, but it seemed that this was more helpful than just hearing about new ideas. Teachers shared how they observed skills, strategies, or ideas they didn't think

about beforehand. There were many things they learned through observing other teachers that they should have known previously but did not know how to do them previously or did not even think about doing them previously. These observations ultimately led to better collaboration during team meetings. Henry explained how teams came together after observations to, "…come up with different ideas of how we could do things better…" These new ideas seemed to be more important with the teachers who were returning to the profession or those who were getting their ARL.

Improved Teaching

The theme improved teaching means the teachers were able to enhance their teaching by observing other teachers**.** Table 13 will introduce the data for the emergent theme *Improved Teaching.*

Table 13

Case 2 Theme: Improved Teaching

Theme	Participant	Data
Improved teaching	Kylie	• Was able to see new strategies.
	Jessica	• Improved assessments.
	Alyssa	• Changed from lecturer to teacher.
	Henry	• Veteran teacher saw improvements in math scores after observing another teacher.
	Kepler	• He was bad at teaching math before but by watching he improved.

Most of the teachers did not have hard data on how they were before peer observations and how they have improved their teaching over time, but there was a strong feeling that this practice helped improve their teaching. Jessica made this comment about

assessments and how peer observations helped, “When I first came in here our assessments were out of control. They were long, and…they weren’t cohesive…” She also wrote this in her journal response, “Through peer mentoring, feedback, and observing I learned not only how to teach curriculum, but how to implement differentiation skills to address student needs.” She felt like it was paramount to her development as a new teacher. Kylie believed it has transformed her teaching completely. She said,

> I was a lecture person. I was total lecture in every aspect of the word. So, education for a teacher now, you know, coming into it, is different, especially for elementary teachers. Even so, I, within a couple of months of me going and observing somebody else was like, oh, that’s an awesome idea and now I use it every couple of minutes constantly.

Kylie was another example of how peer-to-peer feedback changed her teaching and it was a direct result of seeing different pedagogical strategies. Without seeing others, she might not have changed. Kepler was a new teacher and explained how he struggled with teaching math but felt like by observing he was able to see improvements. He said,

> I’ll just say I was terrible at math all growing up, and so I was really nervous about getting into that. But my mentor teacher, we set up our schedule so that during my prep time, it would be his math lesson…so every single day last year, I mean of course there were odd days in here and there, but on a regular basis I was in there. I would observe his math lesson. I would take notes, and then I would come directly after that and teach the lesson…it was just extremely beneficial. I don’t think I would have been able to be as effective of a math teacher my first year if I didn’t have that. I know that would have been the case, so I was much more effective math teacher and I feel like the scores showed…

If nothing else, it made him feel more confident in his abilities to teach math as a new teacher. One interesting part of Case 2 was learning that peer-to-peer feedback was as helpful for Henry as it was for the newer teachers. He explained an experience he had

where he improved his math teaching by observing a younger teacher. In fact, it bothered him she had higher test scores because he felt like he should since he had more experience. He said,

> …so I wanted to go and see what she was doing differently than what I had been doing because she had only been teaching for a couple of years versus me. I was like in my 8th, 9th year…for example, when I teach like fractions, when we do the chapter test to review, I see how they did, my kids, would be in like the 40-50% average for the class. And then once I went and watched her…I was up in the 70's-80% class average.

He was able to see how his scores went up by simply observing another teacher. He attributed all the success to observing this teacher.

Support

The theme support means teachers received the support the way they wanted. They valued the help they received from peer-to-peer feedback. Table 14 will introduce the data for the emergent theme *Support.*

Table 14

Case 2 Theme: Support

Theme	Participant	Data
Support	Kylie	• New teacher and needed support on how to be a teacher.
	Jessica	• Got the support she needed with disruptive student.
	Alyssa	• Returned to classroom after 14 years and needed support transitioning back.
	Henry	• Wanted to improve math scores and did by watching another teaching.
	Kepler	• He needed support teaching math and got it by observing teacher.

This theme was less explicit than many of the other themes. None of the teachers said the word support, but they all described this idea. Each teacher had different needs. It

seemed that they all had aspects of teaching they wanted help with, and they all seemed to get what they wanted or needed out of the practice. Peer-to-peer feedback gave each teacher the support they needed to feel successful. For example, Jessica shared that she struggled with helping students who were disruptive and peer observations helped give her some ideas. She said,

> …watching other teachers use proximity and the things they say to get a child who is disruptive to start participating….or different ways of having a whole class do something but in reality, it's helping that one student to bring it back. So those are two ways I've learned from peer observation.

This was what Jessica needed help with and peer observations gave her the support she needed. Alyssa needed support in a different way. Alyssa left the classroom for 14 years and peer observations helped her transition back in even though she was still close to schools. She observed for a university while away from the classroom, but observations still helped her, and she found it valuable for her "craft." In her journal response she said, "I learned more watching them than most classes (college) or pds (professional development)." Kylie felt like she did not know how to be in the classroom. She just needed support in understanding what it was like to be a teacher. Throughout her interview she kept sharing about how she would get new ideas and that was extremely beneficial to her. One example was when she was struggling with what to do with fast learners or those who finished their assignments quicker than the rest of the class. She said, "seriously, I didn't know what to do with the people who are done so quickly…" After observations she realized she could use a computer program to help her students that only came because she observed other teachers using this program. It is something that is near impossible to learn in university training, but something that she could only

learn from teachers at her school with the resources they had. Once again, Kylie got the support she needed which was different than the other teachers. As stated previously Kepler needed help with math which was different from the other teacher. He was able to go observe and improve his math. He said this about teacher observations, "…being a newer teacher who did not get a teaching degree, they've been like irreplaceable in my experience." Not every teacher struggled with math, but he did. Henry made comments how he felt like it mostly helped others, but he saw how observing others helped him improve his math scores as well. Once again, they all received the support they needed from the practice.

Classroom

This theme was the only negative theme from the study. Teachers did not like leaving their classroom even if observations were helpful. Although a negative, teachers believed it was worth the sacrifice. Table 15 will introduce the data for the emergent theme *Classroom.*

Table 15

Case 2 Theme: Classroom

Theme	Participant	Data
Classroom	Kylie	• Teacher agreed with others.
	Jessica	• Teacher agreed with others.
	Alyssa	• She thought the only negative was being removed from class.
	Henry	• He does not like leaving his class.
	Kepler	• Teacher agreed with others.

Although the teachers were overwhelmingly positive of peer observations, they still had a few struggles with the practice. Every person described how the pros outweigh the cons and there were diverse explanations for the cons of the study, but one was shared. There seemed to be a consensus that it was hard for teachers to leave their own classrooms to go observe other teachers. They all had the support of their administration to get subs or have aids cover their classes, but it was still difficult for the teachers to leave their classrooms. Alyssa shared how it was hard to leave her class, although she had to think about. "It's probably that it's, just it takes you out of your classroom." It would be worse without the supports the administration has in place, but administration cannot remove every hurdle to peer observations. Henry discussed this idea and said it was hard to leave his classroom. He said,

> It's always hard for me to leave my classroom because I just get along with my students so well, so whenever I need to go do an observation, it's like, it's only 20-30 minutes. But that's 20-30 minutes and I don't get to be with my class…For me it's very limited negative stuff for me.

During the focus group Jessica expressed that timing is an issue but Alyssa said once again "it's also hard to leave your own class. You gotta leave something for them so it's not a waste of time." It seemed like all the teachers agreed. This is a challenge that seems inevitable whenever this practice is applied.

Informs Teacher Efficacy

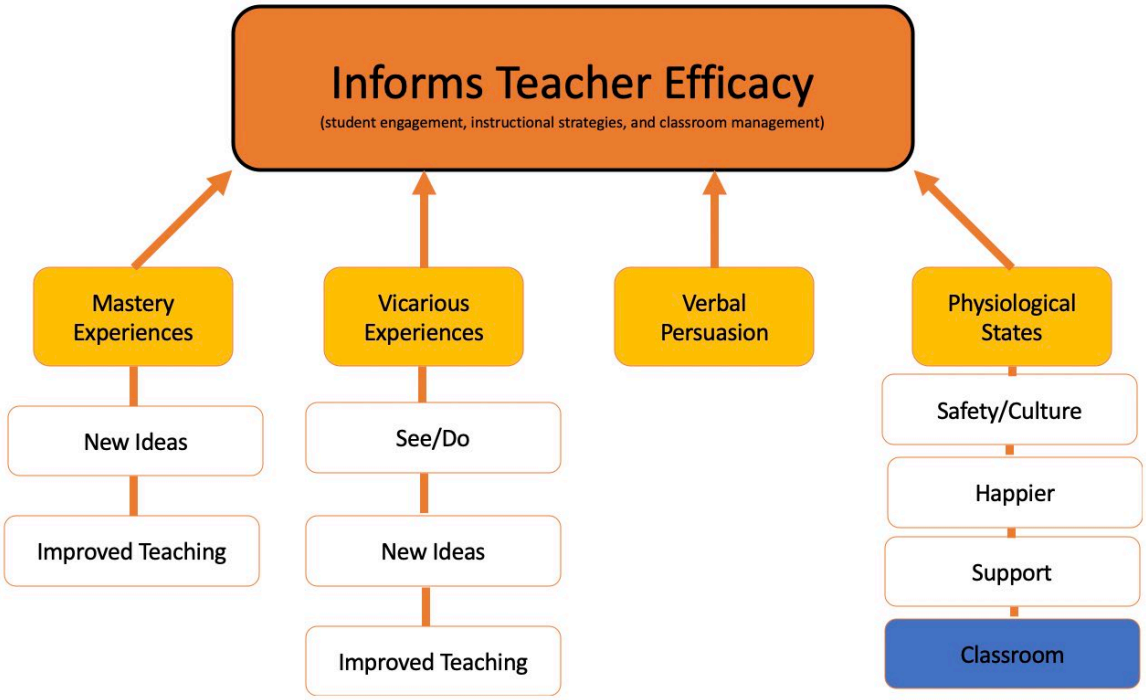
As with Case 1, all the themes in Case 2 provided evidence to the way they informed teacher efficacy. All the themes that informed teacher efficacy positively were *Safety/Culture, See and Do, Happier, New Ideas, Improved Teaching,* and *Support,* and

the only theme which informed teacher efficacy negatively was *Classroom.* Figure 4 displays how each theme informed teacher efficacy with the negative theme displayed in a different color.

As with Case 1 some of the themes informed teacher efficacy in multiple ways so they were placed in two locations in Figure 4. The justification for each theme will now be described.

Figure 4

Case 2: Teacher Efficacy



Safety/Culture

As described previously the culture created safety for the teachers and produced less stress in observations. Thus, this theme informed teacher efficacy positively through physiological states. All the teachers described how they felt comfortable, and it was 'ok'

if they did not teach perfect lessons in front of each other. It was almost as if they are allowed to make mistakes and learn from each other. There is often a lot of anxiety that teachers experience with working with an administration which these teachers did not feel with their administrators or their peers. It is evident that peer-to-peer feedback helps contribute to this culture.

See and Do

This theme was the easiest to see how it informed teacher efficacy. Teachers learned through vicarious experiences or from observing their peers. All the teachers shared how they were more confident by observing others. They believed they could do a certain skill because they could see it instead of just hear or read about it. As stated before, teachers felt like they could learn as much from "bad" observations as "good" observations because they saw what would or would not work in the classroom. They would see a skill and because they saw the skill, they had greater self-beliefs that they could apply the skill in their own teaching. Thus, this theme, which is informed through positive vicarious experiences, informed teacher efficacy positively.

Happier

This theme informed teacher efficacy positively through physiological states because of the strong emotions tied to teaching. As reported in the data beforehand, teachers felt like they could enjoy teaching more. They liked witnessing other teachers teach well and enjoy their "craft." It appeared that some of the teachers were reminded of how they should feel or how they once felt about teaching. Teaching can cause a lot of

stress and the happiness or joy teachers gained from observations helped to alleviate that stress. Thus, happier teachers have better physiological states which will inform teacher efficacy positively.

New Ideas

This theme informs teacher efficacy positively through two ways, through mastery experiences and vicarious experience. Like the theme *See and Do* teachers discovered new ideas of how to implement strategies in their classroom by vicarious experiences and felt more empowered to apply them. The teachers reported learning new strategies by seeing another teacher do them. The teachers then went and applied these new ideas in their classroom and had success. As reported previously, teachers felt like they were able to see the success of applying a new idea and saw it work in their class. This would help them to have better personal experiences, which increases the number and quality of their mastery experiences and informing their teacher efficacy positively.

Improved Teaching

This theme also informed teacher efficacy positively through vicarious experiences and mastery experiences. Teachers were able to see other teachers improve their teaching by teacher observations. This would encourage other teachers to do the same. They believed they could be better teachers through observations too. They believed they could apply the skills they were observing. Teachers also had experiences that displayed how observing other teachers improved their teaching, which improved their mastery experiences. As shared in the data previously, one example was a veteran

teacher observing a teacher and seeing his test scores improved dramatically. Thus, having positive vicarious and mastery experiences informed teacher efficacy positively.

Support

This theme informed teacher efficacy through physiological states. This is because teachers were able to have the help they wanted. Each teacher had different goals which peer observations helped them accomplish, and they can use the practice accordingly. Therefore, teachers were able to get support that they might not have been able to get in other ways which relieved their stress and anxiety. As stated in the data some teachers wanted support as a new teacher and some wanted support in a specific subject area. This provided the help that teachers wanted to relieve burdens from their job. By lessening the burdens of their job, teachers had better physiological states which informs teacher efficacy positively.

Classroom

This is the only theme that informed teacher efficacy negatively. As was shared in the data, teachers felt stressed when they needed to leave their classrooms. Even though the administration provided subs, this did not remove all the stress that came from leaving the classroom. Teachers made it clear that they felt stressed leaving their students which affected their physiological states negatively which informed teacher efficacy negatively. It is important to note teachers believed the pros of observing other teachers outweighed the cons, and leaving the classroom was not a terrible problem, but still added stress.

Cross-Case

Each case study was considerably different from each other in the manner peer-to-peer feedback was implemented at each school. Case 1 had formal relationships established where an experienced teacher would be a mentor to a newer teacher. Case 1 also mentioned frequent peer-to-peer feedback through their teams with people other than their assigned partner. The activities varied and there were many ways the teachers applied peer-to-peer feedback in Case 1. Case 2 was almost entirely peer observations with no formal partnership, but an assignment to observe and learn. There were no formal relationships between teachers, and the teachers were able to pick and choose who they observed and when. The only exceptions were when a team lead would suggest a teacher for another teacher to observe, and the expectation to observe four times a year. The cross-analysis examined these similarities and differences and at the conclusion of the analysis there were three themes which were shared between the studies. The following sections will discuss those shared themes, their similarities, and differences, and then an analysis of the key differences of each case will be discussed.

Shared Themes

There were three themes that were shared between the two cases, and which were verified during cross-analysis. From Case 1 the themes *Improved Teaching, Support,* and *Joy* were similar and representative of the themes in Case 2 *Improved Teaching, Support,* and *Happiness.* These themes were truly representative of what was similar cross-cases, but there were still small differences between the cases. *Support* is the most evident

theme between cases even though it was applied differently. The themes *Joy* and *Happiness* have different names but are describing a similar emergent theme which is why they were combined for this section.

Improved Teaching

In Case 1, they were able to use each other to work on specific skills. Crystal mentioned how she was more on her toes because she knew that somebody was going to be watching her. She remembered some of the practices she needed to master. Sasha was able to see what she wanted to see and improve in the way she wanted to improve. In Case 2 it was similar. Teachers were able to observe the skills they wanted to see. In fact, some of the team leads have a list of teachers who have specific skills that they could send their teachers if they needed suggestions on who they should observe. The cases were similar in the fact that they improved teaching, but different in how they could see it. Henry, from Case 2, was able to see his scores increase dramatically. Kepler was able to watch Henry every day and get help that way. Case 1 had less evidence of outward measurements, like higher test scores, than Case 2, but it might have been because there were only two participants. Overall participants from both cases believed and had some anecdotal evidence that peer-to-peer feedback helped improve their teaching.

Joy and Happiness

The themes had different words to honor the words of the participants in each case, but essentially *Joy* and *Happiness* were describing the same thing. In the *Handbook of Emotions* it states, “Typically, emotions begin with an individual’s assessment of the

personal meaning of some antecedent event…" (p. 778) The author is cognizant that in the emotions literature the words joy and happiness can represent certain physical or emotional changes, but the words were chosen to allow the individuals in each case to tell their story in their own words. The words reflect how the participants would represent their emotions more than the researcher interpreting their words. In Case 1 the idea behind the theme was an emotional connection they had with their peers and having somebody to share their experiences with and to discuss new ideas. In Case 2 it was similar that they had people to go to, but the added component was seeing others teach which increased job satisfaction. Besides that, both cases found joy and happiness working with other people and having their help. The support factor, which will be discussed next, is part of the reason the teachers were happier. Peer-to-peer feedback removed stress and provided help, which caused the teachers to be happier and experience more joy in both cases.

Support

This is the most evident theme between the two cases. In Case 1 Sasha was able to receive the help she needed as a new teacher. She used her team more than her formal peer relationship, but her formal peer relationship still helped her when she needed help. She did not feel forced to go through a program, but she felt the at liberty to use her formal mentor whenever she needed and to use her other peers on her team for her other needs. Crystal also felt this way. She has a different personality and it seemed that she mostly used the formal mentoring relationship to focus on her and her mentee's emotional states. It was about relationships for her, because that was what seemed to

motivate her and help her the way she wanted.

Case 2 was very different in the way they apply peer-to-peer feedback, but it was the support they received that made it successful. It was evident teachers with alternative licensures or those returning to teaching really appreciated seeing other teachers. For example, Kylie and Alyssa had both taught before, but took a break. Peer observations gave them some tools as they returned to the classroom and taught different grade-levels. Henry, the most veteran teacher, at first did not feel like observations were as helpful for him as other teachers but shared how it helped him improve his math teaching. Jessica was an aid previous to becoming a teacher, but there were certain strategies she learned by seeing other teachers which helped her as a new teacher. Just like Case 1, in Case 2 the needs of the teachers were different, but the overall support helped them as teachers. More than any specific strategy used in either case was the support they felt. This is a key factor to how peer-to-peer feedback can inform teacher efficacy positively.

Differences

The major differences between the two cases were likely because of the way each case was implementing the practice of peer-to-peer feedback. The major difference for Case 1 was they had formal relationships. This was probably why the theme *Resource* was more present in this case. It was one of the very reasons the principal established his mentoring program with peer-to-peer feedback. He wanted new teachers to the school to have a resource to help them understand the day-to-day expectations at their school. Case 1 data showed feedback occurring in teams while Case 2 teachers did not give as much feedback to one another. In Case 1 Crystal was the mentor and observed to help the

teacher and went a couple times throughout the year, and Sasha was the mentee, and she went and observed her teacher once and valued collaboration with her team more.

Conversely, Case 2 was more structured in this way, and they were expected to do a minimum of four observations a year with many teachers doing more. This was likely why Case 2 had some major differences when compared to the themes in Case 1. Since this was not a comparison study, this study was not suggesting Case 2 was more successful than Case 1, but it did have more positive themes. One reason might be the number of participants was higher in Case 2 than Case 1. The themes *See and Do* and *New Ideas* were likely a direct result of teachers watching peers more. Teachers were in different teachers' classrooms and not just the one mentor or mentee as in Case 1. Teachers in Case 2 observed other teachers with the intent to learn something or to work on a specific skill they selected. Consequently, these teachers were able to see more ideas and were able to pick teachers which helped them apply things in their classroom now. The mentor from Case 1 did not approach observations with the same mentality. She was focused on giving her mentee feedback whereas Case 2 participants did not provide feedback, unless they were a team lead. Another big difference was the theme *Safety/Culture.* The culture of collaboration was in the entire school in Case 2 since every teacher in the school participated in teacher observations. The culture of safety was palpable. It started with the principal and worked its way to all of the teachers. Teachers felt safe to be in each other's classrooms and they were not afraid of administrative observations. It was just part of the culture at that school. This was vastly different from Case 1 where there seems to be some trepidation with administrative feedback. Lastly,

participants in Case 2 sometimes felt stress leaving their classroom where this did not seem to be as true in Case 1. This might be because there were less participants in Case 1, but it might also be due to the fact that Case 1 has less of an expectation to leave their classroom and the mentor is the primary observer.

These results not only inform this study but provide a direction for principals and researchers. The data from the teachers answered the research questions for this study and have implications which can direct the future direction of similar studies in the future. Chapter V will discuss these results and further synthesize their significance.

CHAPTER V

DISCUSSION

Throughout this study teacher efficacy has been examined on how it was informed by two schools applying peer-to-peer feedback differently. This chapter will now revisit the purpose of the study and how the data was able to answer the research questions. This chapter will then present the findings with recommendations. The findings helped inform the recommendations which will be given along with the limitations to this study. Chapter V will conclude by calling for future research and sharing the conclusions.

Purpose of Study

The purpose of this study was to better understand how peer-to-peer feedback informs teacher efficacy. Principals are overburdened and have the task to be both administrators and instructional leaders. As stated previously principals can struggle with giving content-specific feedback and may not have the time to give the feedback teachers need to improve their practice (Donaldson & Woulfin, 2018; Kraft & Gilmour, 2016). Peer-to-peer feedback is one avenue to assist principals in their roles, but there is still little research on how effective the practice is on a larger scale (Ridge & Lavigne, 2020). There is ample research which provides evidence that when a teacher has higher teacher efficacy there are higher student outcomes (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). Therefore, this study researched how two schools applied peer-to-peer feedback and how the practice of peer-

to-peer feedback informed teacher efficacy. This study provides evidence for why peer-to-peer feedback informs teacher efficacy positively and offers insights into the factors behind the success.

Research Questions

Throughout this dissertation, the researcher attempted to understand how teacher efficacy is informed by peer-to-peer feedback. Specifically, in this study two schools were selected that were enacting the practice of peer-to-peer feedback and were examined on how teacher efficacy was informed. This study then identified emergent themes or factors that influenced teacher efficacy. Accordingly, the research questions in this study were:

1. How is teacher efficacy informed by peer-to-peer feedback?
2. What factors influence the quality of teacher efficacy?

A multi-case qualitative study was deliberately selected to help answer these questions. This method helped uncover the answers to the questions and particularly question two because it allowed more data to understand and provide a story for the themes which emerged. The process followed closely Yin (2018) for "Multi-Case Study Procedure" and helped provide overall analysis within each case and for both cases.

Prior to the study some literature suggested peer-to-peer feedback would inform teacher efficacy positively. It was unclear what factors would inform teacher efficacy positively or negatively which is why this study was valuable. Additionally, there were some studies which revealed the difficulties of implementing peer-to-peer feedback that could lead to informing teacher efficacy negatively. Thus, there is a gap in the literature.

Prior research focused mainly on efficacy scales and could provide insight to pre and post efficacy levels of teachers but did not provide why or what influenced those scores.

Both questions were answered within the context of the case studies. Briefly, in both cases there was evidence that teacher efficacy was informed positively by peer-to-peer feedback. The data was gathered through interviews, focus groups, and journal responses. The factors were different among each case study. However, there were common factors with support being the dominant factor for both.

Findings

The evidence from the interviews, focus groups, and the journal responses suggests that peer-to-peer feedback informed teacher efficacy positively. Repeatedly, teacher efficacy was informed positively through mastery experiences, vicarious experiences, verbal persuasion, and physiological states. The emergent themes from each case study provided evidence of how teacher efficacy was informed positively and the reasons why (revisit Figures 3-4, Tables 3-15, and explanations in Chapter IV for further explanation). For Case study 1 those themes were: resource, improved teaching, joy, and support. For Case study 2 the themes were: safety/culture, see and do, happier, new ideas, improved teaching, and support. Table 16 briefly revisits each theme and why and how they informed teacher efficacy positively (revisit Chapter IV for more in-depth explanations). These themes, which dominated the data, made it clear that teacher efficacy is informed positively by peer-to-peer feedback. The only negative theme was being removed from the classroom and that was found in one of the cases. The

participants downplayed its effects, but it is important to acknowledge that peer-to-peer feedback can cause stress too, which could inform teacher efficacy negatively.

Table 16

Both Cases' Themes as Factor

Case	Theme	Factor
Case 1	Resource	Informed teacher efficacy through verbal persuasion because of the verbal support of peers. Peers' knowledge was the resource in addition to physically having a resource or somebody to go to.
	Improved teaching	Informed teacher efficacy through mastery and vicarious experiences. They were able to see other teachers be successful and then able to apply in their class. Thus, they could see it and believed they could do it, then they would do it and had more mastery experiences.
	Joy	Informed teacher efficacy through physiological states because they enjoyed teaching more. There was less stress.
	Support	Informed teacher efficacy through verbal persuasion and physiological states. Teachers had support through words of peers and had support they needed. Stress and isolation were removed.
Case 2	Safety/culture	Informed teacher efficacy through physiological states. Teachers felt safe and had less stress.
	See and do	Informed teacher efficacy through vicarious experience. Teachers observed other teachers teach successfully and believed they could do.
	Happier	Informed teacher efficacy through physiological states because they enjoyed teaching more. There was less stress and more happiness.
	New ideas	Informed teacher efficacy through mastery and vicarious experiences. Teachers would observe new and ideas and believed they could apply these ideas. When they applied ideas, they had success which increased mastery experiences.
	Improved teaching	Informed teacher efficacy through mastery and vicarious experiences. They believed they could improve because others did. They also had mastery experiences because saw results improve.
	Support	Informed teacher efficacy through physiological states. Teachers had support they needed, and stress and isolation were removed.

Each case was different but had similarities. These similarities and differences in many ways richen the study and help provide data for future studies. It is important to note, once again, that this is not a comparative study. It is difficult even in a qualitative study to know which practice of peer-to-peer feedback informs teacher efficacy more than the other. As discussed previously, there are different themes from each case study which inform teacher efficacy differently, but this study focuses on the story behind those differences. For example, Case 2 was able to inform teacher efficacy with providing new ideas, giving teachers a chance to see other teachers, and immediately apply what they learned in their classroom. This probably occurred more in Case 2 because all the teachers in that case study observe at least four times a year with the teachers sharing they usually observed more than four times. Teachers had several opportunities to increase their efficacy through observations. It is not limited to one-time professional development opportunities. The teachers valued seeing a model of what they could do. Case 1 also provided a framework where teachers could have help. The formal relationships ensured newer teachers had this support. The biggest factor through both is support which aligns with current literature.

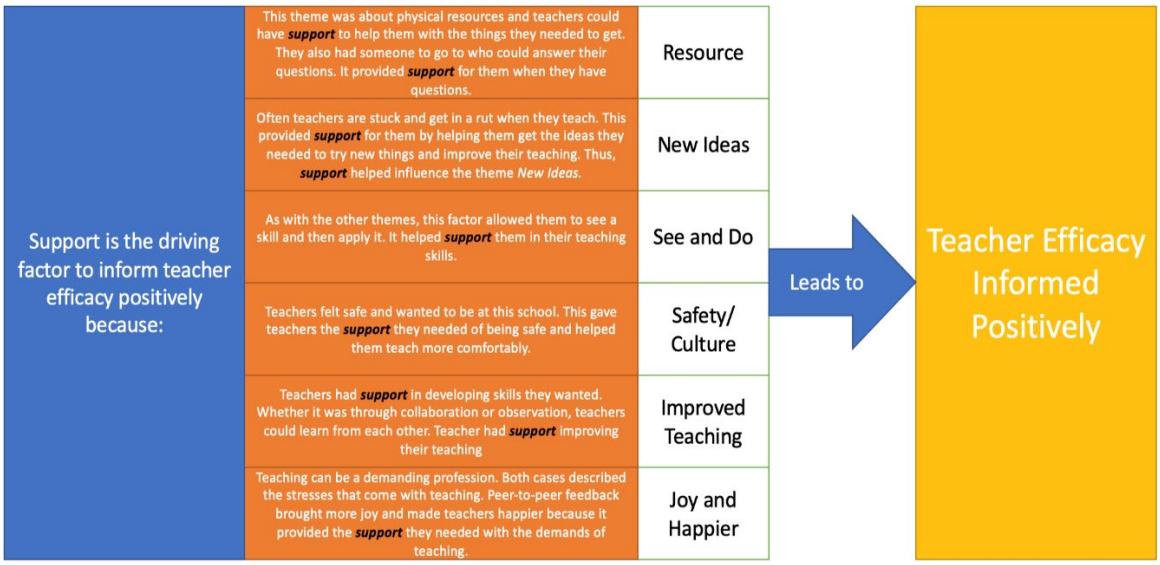
Currently, researchers have found that teacher collaboration is one of the key positives of peer-to-peer feedback (Ridge & Lavigne, 2020), although current literature has not researched how it might inform teacher efficacy. This study did not identify collaboration as one of themes. This was a little surprising, but a further review of the literature might find that support could be the reason why teacher collaboration is positive in the literature. Thus, teacher collaboration is the word that many researchers

have used in their research, but it could be closely aligned to the main theme of this study, support. Teachers like being supported and having the help that they need. The current literature suggests that principals do not have time to do all instructional leaders have been asked to do, and so teachers may be turning to coworkers for support. Thus, within the idea of teacher support there is plenty of teacher collaboration. It might be of some value to review the current literature to understand if teachers truly value teacher collaboration or do they value the support that teacher collaboration brings in their teaching. It would be impossible to do this without more studies in the future, which is why more research should be done in this field.

In all the themes, support was the driving factor or story behind why these factors inform teacher efficacy positively. Figure 5 helps provide a visual of how support was the underlying factor behind why teacher efficacy is informed positively by all the themes. It is important to note that there were a few shared themes which were combined in the figure. Therefore, the main factor in both cases of why peer-to-peer feedback informed teacher efficacy positively is because of the support that it provided regardless of the struggles or needs of the individual teacher. It is important to note that support in this context primarily is to be understood as emotional or affective support. In Case 1 there is an example of physical support and that is because in one instance Sasha described how she got lesson plans and made copies from her mentor. Although this is a physical support, it still points to the larger affective support because she did not have the stress of isolation. She had others there to help her.

Figure 5

Support as Primary Factor



Recommendations

It is highly possible that principals are being asked to do too much (Hallinger, 2005). The accountability measures of the last few decades require principals to improve the teaching in their schools, which is a difficult task. With limited time, this difficult task might become impossible. Thus, it is important to find ways to help principals to fulfill their roles and responsibilities. In a review of literature, Ridge and Lavgine (2020) find that peer-to-peer feedback is a promising practice, but still has limited evidence in K-12 settings because of the lack of literature. This study provides additional data of what can be explored in the future.

In these case studies there was ample evidence to suggest that peer-to-peer feedback informed teacher efficacy positively. With high levels of teacher efficacy there

will be more effective teaching. Peer-to-peer feedback can be a strategy schools may use to aid principals in their roles as instructional leaders. There are few practices which these schools enacted that made peer-to-peer feedback work effectively to inform teacher efficacy positively. The following recommendations come from researching both schools in this study, and for implementation of peer-to-peer feedback. The researcher firmly believes that intervention and formal peer-to-peer feedback is necessary to have the positive results that were experienced at these schools. Teachers want to improve but are often busy and some teachers will not engage without being asked to. For example, Henry would not observe without being asked because he did not think it helped him. He later contradicted himself and it was clear he was teaching math better because of observations. Thus, implementation in a formal manner seems best according to the data from this study. Recommendations for researchers will be provided later on in this chapter. The recommendations for peer-to-peer feedback for school leaders are:

- school culture,
- frequent observations,
- accountability with flexibility,
- partnerships, and
- providing support.

School Culture

There needs to be a culture of safety and trust for teachers to feel comfortable with others coming to observe their classes. This can be developed through strategies from the principal, as from Case 2, or it can be done through the leadership team. The strategies from this study involved the principal visiting classrooms daily. He made observations a normal part of their teaching. Not every administrator needs to do exactly

this practice, and how a principal establishes this safety is determined by them. Building good school cultures will likely involve leadership teams working together with their principals. The principal will need to understand the individual challenges, strengths, needs, and restraints of their school to make these key decisions. Another key aspect of culture is the non-threatening nature of observations. Teachers need to feel safe failing. Frequency of observations can help with this, but if there is not teacher buy-in, then this practice will probably not be good for teacher efficacy and cause stress.

Frequent Observations

Teachers need to observe other teachers frequently. In this study, some of the benefits came because teachers were able to see more teachers more often. With frequent observations, there will need to be supports in place so leaving classrooms does not feel like a burden. This weight can be alleviated by the help of aids, coaches, and administration covering classes. There does not seem to be a magic number but there needs to be sufficient observations where teachers can still learn.

Accountability with Flexibility

If teachers are not asked to do a specific number of observations, then they might not do them. There needs to be clear expectations, or the demands of teaching will always take priority over observing other teachers. It is important to allow teachers to share what they have learned on teams or with other teachers so the lessons they learned aren't lost after observations or feedback. Although accountability is important, flexibility is equally important. Teachers need to drive their own professional growth and should be allowed

some autonomy to determine how they want to apply peer-to-peer feedback. Eliminating stress instead of adding stress is always important to helping teachers in their jobs. There is a balancing act between accountability and flexibility that will help teachers participate without feeling stressed or upset.

Partnerships

In this study there was one school which had assigned partners and there was one school who did not. Schools will need to determine what they hope to accomplish with peer-to-peer feedback, and this will likely drive this decision. For example, the school which assigned partners in this study did so because they were helping new teachers at their school feel comfortable and get absorbed to the school culture. If partners are selected, then ensure partnerships are with people that can work well together, especially if it is with two veteran teachers. Creating partnerships need to be deliberate or it could cause more problems than it solves.

Providing Support

Once again, this is the most important part of the practice. Help teachers get the unique support they need and desire. If they need help with math, then ensure they have help with math. Let them observe a math teacher who has strengths in the areas they want to improve. If a teacher likes being observed, then observe them or send somebody to observe them. If teachers need someone to go to for questions, ensure that peer-to-peer feedback can provide that for them. If teachers feel anxiety, then provide resources to remove stress. Eliminate stress by using peers, by alleviating the burden of isolation or

helplessness. The key to teacher efficacy is that teachers feel a sense of agency or an ability to make choices to improve. If the practice of peer-to-peer feedback does not support teachers, then it will likely decrease teacher efficacy because it will add to teachers' lists of things to do. Supporting teachers is the key. How a principal will support a teacher the best will be determined by the teachers and the context of the school.

Limitations

The obvious limitation to this study is that it is a qualitative study. Although the results from this study are promising, the results cannot go beyond these two individual case studies. This study provides insights for schools and researchers, but future research will need to be done to make stronger assertions. In short, it is hard to generalize the findings of this study. Another limitation to this study could be the small samples. Although it can be perceived as a weakness, this allowed the researcher to go deeper and ask more questions in the focus groups and interviews. This depth is needed in order to understand the factors behind the success or failure of peer-to-peer feedback. One limitation which could come from the participants was self-selection. They volunteered to be a part of this study, and it is unclear if those who volunteered only represented those who feel positively about the study. The data does not seem to support this idea because they spoke generally as a group, but future investigations should consider this factor.

Another limitation to this study was the nature of the study. The majority of efficacy studies use efficacy scales. This study did not use scales. This was deliberate

because of the research questions, but it still brings limitations to this study. Lastly, although teachers reflected previously to their involvement in peer-to-peer feedback, it was still difficult to create a baseline for the data. Although there were limitations to this study there were some surprises which could lead to substantial implications for future research.

Implications and Future Research

This research had a specific scope to understand how peer-to-peer feedback affects teacher efficacy. The data provides evidence to areas which need to be explored further. One of those areas is the impact that peer-to-peer feedback has on teacher retention. One of the participants in this study, Sasha, made it clear that she was still teaching because of the support she felt from her peers. This study did not investigate teacher attrition, but this could become especially important when working with policy makers in implementing peer-to-peer feedback in schools.

Another way to measure teacher efficacy is through collective teacher efficacy. Although this was a study on teacher efficacy, collective teacher efficacy was ignored. There is strong evidence, especially from Case 2, which might suggest future studies in teacher efficacy.

Additionally, this study was a self-efficacy study. Bandura asserts that mastery experiences are the most influential way to inform teacher efficacy. The data from this study challenges that assertion because the physiological states (in this study the theme support emerged) of the teachers was the driving force of why teacher efficacy was

informed positively. Future studies can explore how emotions might be the most important way to inform teacher efficacy.

This study was truly unique because it was a qualitative study on teacher efficacy on peer-to-peer feedback. Table 1 provided a quick view of many of the past studies on peer-to-peer feedback and highlights why this study is meaningful to bridge a gap in the field. The literature on peer-to-peer feedback is sparse and is applied in many ways. Most of the current studies on self-efficacy do not provide a story or understanding of 'the why' behind the data. This is likely because the majority of studies have been quantitative studies. More teacher efficacy studies can focus on the story of the data to gain a better understanding of the factors which influence teacher efficacy. Hence, mixed studies or more qualitative studies need to be done.

There is also a need for more studies on peer-to-peer feedback. The lack of literature forces the definition to be large and encompass several activities. This was deliberate for this study, but it might be helpful to have more studies focus on what is happening in schools. Future research could include non-formal applications of peer-to-peer feedback by the teachers. These additional studies would allow researchers to refine the definition to identify the activities that are most useful for administrators to know.

There needs to be more data and researchers can do more projects to understand the proper implementation of peer-to-peer feedback. This dissertation provided some data but there is little research on how to start this practice at a school, especially with veteran teachers. This investigation only involved two elementary levels, but future studies should deliberately research peer-to-peer feedback at the secondary level.

Last, there is a need for more studies of how peer-to-peer feedback inform teacher efficacy. It is hard to measure an intervention like peer-to-peer feedback because it is hard to establish a baseline and it is hard to isolate how peer-to-peer feedback affects outcomes like test scores, teacher attrition, etc. There are so many other factors. It might be easier to isolate teacher efficacy, which is why this study focused on teacher efficacy for this study. Policy makers will not be swayed to provide more money or support to a practice which has not proven to be successful. Thus, repeated studies like this one would be helpful to developing a more robust literature for administrators and researchers to utilize as they try to improve teaching and ultimately help students.

Conclusions

In this era of accountability, principals are responsible for improving the instruction of their teachers. As has been stated numerous times and ways throughout this study, this is difficult for principals who already have many other responsibilities which keep them extremely busy. Peer-to-peer feedback is a strategy that can help. This study has provided evidence that when applied similarly to these two schools, that teacher efficacy is informed positively. This is critically important because the current literature is clear that when teachers have higher levels of teacher efficacy, they will teach better and have higher student outcomes (Hutchins et al., 2012; Tschannen-Moran & Woolfolk-Hoy, 2001, 2007; Tschannen-Moran et al., 1998). The students will always be the most important variable in education now and in the future.

The next 20 years will likely be marked similarly as the past 20 years, with

education reform. It is yet to be seen how ESSA will affect principals and teachers, not mention the changes that have come as a result of Covid-19. As part of future reform, it is likely that improving teaching will be a focal point to help students. Peer-to-peer feedback is a powerful way to help teachers improve their practice. The research questions for this investigation aimed to understand how teacher efficacy is informed and what factors influence those effects. The evidence in both cases in this multi-case study demonstrated that teacher efficacy is informed positively at each school and support was the primary factor. When teachers felt supported, they had positive feelings about peer-to-peer feedback regardless of how they applied the practice. This informed teacher efficacy positively in different ways, but it was consistent with both cases. The evidence from this exploration suggests that teaching is improving, at least in part, because of teacher efficacy. These results provide justification for applying peer-to-peer feedback at schools by training school leaders and teachers.

Local universities and school districts should turn to practices like peer-to-peer feedback to assist and train future principals and teachers. More research will help universities know what things they need to teach and what things will be left up to the local schools. Principals typically want to help teachers and teachers usually want to improve. Currently, both encounter challenges. Principals struggle finding time accomplish their roles and teachers want more support. This practice allows both teachers and principals to have the time and support they need to improve teaching. Often to improve teaching, pedagogy is the only factor explored, but there is much more to a teacher than just teaching which affect their effectiveness in the classroom. As learned

from this study, teachers need to be supported in every aspect of their profession and sometimes in their emotional states to be successful at teaching. Somehow teachers need to get more support, and peer-to-peer feedback can provide support if applied correctly. It also can be a low-cost solution to districts who worry about expensive professional development programs. Peer-to-peer feedback has many positives that should make it especially appealing to administrators as they attempt to accomplish all of their responsibilities. Ultimately, teaching needs to be the very best it can, so students can get the very best they deserve. Peer-to-peer feedback can help inform teacher efficacy positively which can help improve teacher instruction. When teacher instruction improves, student outcomes improve and that should make administrators excited at implementing this promising practice; peer-to-peer feedback.

REFERENCES

Anderson, N. A., Barksdale, M. A., & Hite, C. E. (2005). Preservice teachers' observations of cooperating teachers and peers while participating in an early field experience. *Teacher Education Quarterly*, *32*(4), 97–117.

Arnau, L., Kahrs, J., & Kruskamp, B. (2004). Peer coaching: Veteran high school teachers take the lead on learning. *NASSP Bulletin*, *88*(639), 26–41. https://doi.org/10.1177/019263650408863904

Babo, G., & Ramaswami, S. (2011). Principal evaluation and the application of the ISLLC 2008 standards' "functions" by school superintendents: A national study. *ISEA*, 39, 77–90.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122-147. https://doi.org/10.1037/0003-066X.37.2.122

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1- 26. https://doi.org/10.1146/annurev.psych.52.1.1

Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goals systems. *Journal of Personality and Social Psychology*, *45*(5), 1017-1028. https://doi.org/10.1037/0022-3514.45.5.1017

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, *41*(3), 586. https://doi.org/10.1037/0022-3514.41.3.586

Bickman, L., Goldring, E., De Andrade, A. R., Breda, C., Goff, P., & Society for Research on Educational Effectiveness (SREE). (2012, March 8-10). *Improving principal leadership through feedback and coaching.* Presentation at the Society for Research on Educational Effectiveness: Understanding Variation in Treatment Effects, Washington, DC.

Boggan, M., & Wallin, P. (2016). Under the microscope: Principal perceptions of the Mississippi statewide teachers assessment rubric (MSTAR), a pilot-year study. *Excellence in Education Journal*, *5*(2), 3–35.

Bruce, C. D., & Ross, J. A. (2008). A model for increasing reform implementation and teacher efficacy: Teacher peer coaching in grades 3 and 6 mathematics. *Canadian Journal of Education*, *31*(2), 346–370.

Buss, R. R. (2010). Efficacy for teaching elementary science and mathematics compared to other content. *School Science and Mathematics 110*(6), 290–297. https://doi.org/10.1111/j.1949-8594.2010.00037.x

Castañeda-Londoño, A. (2017). Exploring English teachers' perceptions about peer-coaching as a professional development activity of knowledge construction. *HOW*, *24*(2), 80–101. https://doi.org/10.19183/how.24.2.345

Close, K., Amrein-Beardsley, A., & Collins, C. (2020). Putting teacher evaluation systems on the map: An overview of states' teacher evaluation systems post–Every Student Succeeds Act. *Education Policy Analysis Archives*, *28*(58), 1-31. https://doi.org/10.14507/epaa.28.5252

Collins, C. (2014). Houston, we have a problem: Teachers find no value in the SAS education value-added assessment system (EVAAS®). *Education Policy Analysis Archives*, *22*(98), 1–39. https://doi.org/10.14507/epaa.v22.1594

Danielson, C. (2011). Evaluations that help teachers learn. *Educational Leadership*, *68*(4), 35–39.

Danielson, C. (2013). *Framework for teaching: Evaluation instrument*. The Danielson Group.

Darling-Hammond, L (2000). Teacher quality and student achievement. *Education Policy Analysis Archives*, *1*(8), 1068-2341. https://doi.org/10.14507/epaa.v8n1.2000

Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E. H., & Rothstein, J. (2011). Getting teacher evaluation right: A background paper for policy makers. *Research Briefing of National Academy of Education,* Washington, D.C.

Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). *Evaluating teacher evaluation. Phi Delta Kappan, 93*(6), 8–15. https://doi.org/10.1177/003172171209300603

Darling-Hammond, L., Bae, S., Cook-Harvey, C. M., Lam, L., Mercer, C., Podolsky, A., & Stosich, E. L. (2016). *Pathways to new accountability through the Every Student Succeeds Act*. Palo Alto, CA: Learning Policy Institute.

Derrington, M. L. (2016). Implementing teacher evaluation: Lattice of leadership. *Journal of Research on Leadership Education*, *11*(2), 181–199. https://doi.org/10.1177/1942775116658689

Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted*, *37*(2), 111–127. doi:10.1177/0162353214529042

Donahue, E., & Vogel, L. R. (2018). Teacher perceptions of the impact of an evaluation system on classroom instructional practices. *Journal of School Leadership*, *27*(1), 31–55. https://doi.org/10.1177/105268461802800102

Donaldson, M. L., & Woulfin, S. (2018). From tinkering to going "rouge": How principals use agency when enacting new teacher evaluation systems. *Educational Evaluation and Policy Analysis*, *40*(4), 531–556. https://doi.org/10.3102/0162373718784205

Drape, T. A., Lopez, M., & Radford, D. (2016). Teacher efficacy and professional development needs of mid-career agriculture educators integrating the next generation science standards and other content areas. *Career and Technical Education Research*, *41*(1), 33–48. https://doi.org/10.5328/cter41.1.33

Fahlman, M. L., Hall, H., & Gutuskey, L. (2013). The impact of a health methods class on pre-service teachers' self-efficacy and intent to teach health. *American Journal of Health Education*, *44*(6), 316–323. https://doi.org/10.1080/19325037.2013.838891

Ford, T., Urick, A., & Wilson, A. (2018). Exploring the effect of supportive teacher evaluation experiences on U.S. teachers' job satisfaction. *Education Policy Analysis Archives*, *26*(59), 1-36. https://doi.org/10.14507/epaa.26.3559

Garet, M. S., Wayne, A. J., Brown, S., Rickles, J., Song, M., Manzeske, D., & National Center for Education Evaluation and Regional Assistance (ED). (2017). *The impact of providing performance feedback to teachers and Principals. NCEE 2018-4001*. National Center for Education Evaluation and Regional Assistance. https://files.eric.ed.gov/fulltext/ED578873.pdf

Goe, L., (2013) Can teacher evaluation improve teaching? *Principal Leadership*, *13*(7), 24–29.

Goldring, E., Grissom, J. A., Rubin, M., Neumerski, C. M., Cannata, M., Drake, T., & Schuermann, P. (2015). Make room value added: Principals' human capital decisions and the emergence of teacher observation data. *Educational Researcher*, *44*(2), 96–104. http://dx.doi.org/10.3102/0013189X15575031

Gorozidis, G., & Papaioannou, A. (2011). Teachers' self-efficacy, achievement goals, attitudes and intentions to implement the new Greek physical education curriculum. *European Physical Education Review, 17*(2), 231-253. https://doi.org/10.1177/1356336X11413654

Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher*, *42*(8), 433–444. https://doi.org/10.3102/0013189X13510020

Gross, P. A. (2010). Not another trend: Secondary-level literacy coaching. *Clearing house: A Journal of Educational Strategies, Issues and Ideas, 83*(4), 133–137. https://doi.org/10.1080/00098651003774844

Guo, Y., Justice, L. M., Sawyer, B., & Tompkins, V. (2011). Exploring factors related to preschool teachers' self-efficacy. *Teaching and Teacher Education: An International Journal of Research and Studies*, *27*(5), 961–968. https://doi.org/10.1016/j.tate.2011.03.008

Hallinger, P. (2005). Instructional leadership and the school principal: A passing fancy that refuses to fade away. *Leadership and Policy in Schools*, *4*(3), 221–239. https://doi.org/10.1080/15700760500244793

Hallinger, P., Heck, R. H., & Murphy, J. (2014). Teacher evaluation and school improvement: An analysis of the evidence. *Educational Assessment, Evaluation and Accountability*, *26*, 5-28. https://doi.org/10.1007/s11092-013-9179-5

Haverback, H. R., & McNary, S. (2015). Shedding light on preservice teachers' domain-specific self-efficacy. *Teacher Educator*, *50*(4), 272–287. https://doi.org/10.1080/08878730.2015.1070942

Hennink, M. M. (2014). *Focus group discussions.* Oxford University Press.

Hilby, A. C., Stripling, C. T., & Stephens, C. A. (2014). Exploring the disconnect between mathematics ability and mathematics efficacy among preservice agricultural education teachers. *Journal of Agricultural Education*, *55*(5), 111–125. https://doi.org/10.5032/jae.2014.05111

Hill, H. C., & Grossman, P. (2013). Learning from teacher observations: Challenges and opportunities posed by new teacher evaluation systems. *Harvard Educational Review*, *83*(2), 371–384. https://doi.org/10.17763/haer.83.2.d11511403715u376

Hutchins, M., Melancon, J., & Nunning, J. R. (2012). Teaching self-efficacy of a selected group of secondary health education teachers. *Journal of Health Education Teaching*, *3*(1), 27–32.

Jao, L. (2013). Peer coaching as a model for professional development in the elementary mathematics context: Challenges, needs and rewards. *Policy Futures in Education*, *11*(3), 290–297. https://doi.org/10.2304/pfie.2013.11.3.290

Klassen, R. M., Usher, E. L., & Bong, M. (2010). Teachers' collective efficacy, job satisfaction, and job stress in cross-cultural context. Journal of Experimental Education, *78*(4), 464-486. https://doi.org/10.1080/00220970903292975

Koch, M. (2014). *The relationship between peer coaching, collaboration and collegiality, teacher effectiveness and leadership* (Order No. 3616174) [doctoral dissertation, Walden University]. ProQuest Dissertations & Theses Global.

Kohler, F. W., Crilley, K. M., Shearer, D. D., & Good, G. (1997). Effects of peer coaching on teacher and student outcomes. *Journal of Educational Research*, *90*(4), 240–250. https://doi.org/10.1080/00220671.1997.10544578

Kraft, M. A., & Gilmour, A. F. (2016). Can principals promote teacher development as evaluators? A case study of principals' views and experiences. *Educational Administration Quarterly*, *52*(5), 711–753. https://doi.org/10.1177/0013161X16653445

Lauermann, F., & Karabenick, S. A. (2013). The meaning and measure of teachers' sense of responsibility for educational outcomes. *Teaching and Teacher Education: An International Journal of Research and Studies, 30*, 13-26. https://doi.org/10.1016/j.tate.2012.10.001

Lavigne, A., & Chamberlain, R. (2017). Teacher evaluation in Illinois: School leaders' perceptions and practices. *Educational Assessment, Evaluation & Accountability*, *29*(2), 179–209. https://doi-org.dist.lib.usu.edu/10.1007/s11092-016-9250-0

Lee, O., & Choi, E. (2013). Utilizing peer coaching to facilitate pre-service physical education teachers' reflection. *The Asia-Pacific Education Researcher, 22*(2), 147–154. https://doi.org/10.1007/s40299-012-0007-3

Lee, M. H., & Tsai, C. C. (2010). Exploring teachers' perceived self-efficacy and technological pedagogical content knowledge with respect to educational use of the World Wide Web. *Instructional Science: An International Journal of the Learning Sciences, 38*(1), 1-21. https://doi.org/10.1007/s11251-008-9075-4

Licklider, B. L. (1995). The effects of peer coaching cycles on teacher use of complex teaching skill and teacher's sense of efficacy. *Journal of Personnel Evaluation in Education*, *9*, 55–68. https://doi.org/10.1007/BF00975249

Ma, N., Xin, S., & Du, J-Y. (2018). A peer coaching-based professional development approach to improving the learning participation and learning design skills of in-service teachers. *Journal of Educational Technology & Society*, *21*(2), 291–304.

Mahalingappa, L., Hughes, E. M., & Polat, N. (2018). Developing preservice teachers' self-efficacy and knowledge through online experiences with English language learners. *Language and Education, 32*(2), 127-146. https://doi.org/10.1080/09500782.2017.1417996

Marzano, R. J., & Toth, M. D. (2013). *Teacher evaluation that makes a difference: A new model for teacher growth and student achievement*. Association for Supervision and Curriculum.

McNeill, K. L., Pimentel, D. S., & Strauss, E. G. (2013). The impact of high school science teachers' beliefs, curricular enactments and experience on student learning during an inquiry-based urban ecology curriculum. *International Journal of Science Education*, *35*(15), 2608–2644. https://doi.org/10.1080/09500693.2011.618193

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook.* Sage.

Mireles-Rios, R., Becchio, J. A., & Roshandel, S. (2019). Teacher evaluations and contextualized self-efficacy: Classroom management, instructional strategies and student engagement. *Journal of School Administration Research and Development*, *4*(1), 6–17.

Mizzi, D. (2013). The challenges faced by science teachers when teaching outside their specific science specialism. *Acta Didactica Napocensia*, *6*(4), 1–6.

Murphy, J., Hallinger, P., & Heck, R. H. (2013). Leading via teacher evaluation: The case of the missing clothes? *Educational Researcher*, *42*(6), 349-354. https://doi.org/10.3102/0013189X13499625

Murray, S., Ma, X., & Mazur, J. (2009). Effects of peer coaching on teachers' collaborative interactions and students' mathematics achievement. *Journal of Educational Research*, *102*(3), 203–212. https://doi.org/10.3200/JOER.102.3.203-212

National Association of Secondary School Principals. (n.d.). *Every Student Succeeds Act (ESSA) Overview*. https://www.nassp.org/policy-advocacy-center/resources/essa-toolkit/essa-fact-sheets/every-student-succeeds-act-essa-overview/

Neubert, G. A., & McAllister, E. A. (1993). Peer coaching in preservice education. *Teacher Education Quarterly*, *20*(4), 77–84.

Neumerski, C. M., Grissom, J. A., Goldring, E., Rubin, M., Cannata, M., Schuermann, P., & Drake, T. A. (2018). Restructuring instructional leadership: How multiple-measure teacher evaluation systems are redefining the role of the school principal. *Elementary School Journal*, *119*(2), 270–297. https://doi.org/10.1086/ 700597

Ovens, A. (2004). Using peer coaching and action research to structure the practicum: An analysis of student teacher perceptions. *Journal of Physical Education New Zealand*, 37, 45–60.

Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. http://www.emory.edu/EDUCATION/mfp.eff.html

Pan, S. C., & Franklin, T. (2011). In-service teachers' self-efficacy, professional development, and Web 2.0 tools for integration. *New Horizons in Education*, *59*(3), 28–40.

Phillips, M. D., & Glickman, C. D. (1991). Peer coaching: Developmental approach to enhancing teacher thinking. *Journal of Staff Development*, *12*(2), 20–25.

Pollara, J. (2012). *Peer coaching: Teachers as leaders, teachers as learners.* (Publication No. 3503289) [Doctoral dissertation, College of St. Elizabeth]. ProQuest Dissertations and Theses Global.

Porras, N. I., Díaz, L. S., & Nieves, M. M. (2018). Reverse mentoring and peer coaching as professional development strategies. *Colombian Applied Linguistics Journal*, *20*(2), 165–179. https://doi.org/10.14483/22487085.12422

Prince, T., Snowden, E., & Matthews, B. (2010). Utilizing peer coaching as a tool to improve student-teacher confidence and support the development of classroom practice. *Literacy Information and Computer Education Journal*, *1*(1), 49–51. https://doi.org/10.20533/licej.2040.2589.2010.0007

Ridge, B., & Lavigne, A. (2020). Improving instructional practice through peer observation and feedback: A review of the literature. *Education Policy Analysis Archives*, *28*(61)1-32. https://doi.org/10.14507/epaa.28.5023

Ridge, B., & Longhurst, M. L. (2020) *Peer to peer feedback and self-efficacy*. Manuscript submitted for publication.

Robbins, P. (2015). *Peer coaching to enrich professional practice, school culture, and student learning.* Association for Supervision and Curriculum.

Saine, P., & West, J. A. (2017). Content area teacher candidates' self-efficacy beliefs of teaching writing online. *Journal of Digital Learning in Teacher Education*, *33*(2), 69–77. https://doi.org/10.1080/21532974.2017.1280433

Scheeler, M. C., Congdon, M., & Stansbery, S. (2010). Providing immediate feedback to coteachers through bug-in-ear technology: An effective method of peer coaching in inclusion classrooms. *Teacher Education and Special Education*, *33*(1), 83–96. https://doi.org/10.1177/0888406409357013

Shi, Q. (2014). Relationship between teacher efficacy and self-reported instructional practices: An examination of five Asian countries/regions using TIMSS 2011 data. *Frontiers of Education in China*, *9*(4), 577–602. https://doi.org/10.1007/BF03397041

Slater, C. L., & Simmons, D. L. (2001). The design and implementation of a peer coaching program. *American Secondary Education*, *29*(3), 67–76.

Stecher B. M., Holtzman, D. J., Garet, M. S., Hamilton, L. S., Engberg, J., Steiner E. D., Robyn, A., Baird, M. D., Gutierrez, I. A., Peet, E. D., Reyes. I. B., Fronberg, K., Weinberger, G., Hunter, G. P., & Chambers, J. (2018). *Improving teaching effectiveness. Final report. The intensive partnerships for effective teaching through 2015–2016*. https://doi.org/10.7249/RR2242

Swanson, P. (2012). Second/foreign language teacher efficacy and its relationship to professional attrition. *Canadian Modern Language Review*, *68*(1), 78–101. https://doi.org/10.3138/cmlr.68.1.078

Syh-Jong, J., & Hsiu-Chuan, S. (2009). Developing in-service science teachers' PCK through a peer coaching-based model. *Journal of Education Research*, *3*(1, 2), 87–108.

Thijs, A., & Van den Berg, E. (2002). Peer coaching as part of a professional development program for science teachers in Botswana. *International Journal of Educational Development, 22*(1), 55–68. https://doi.org/10.1016/S0738-0593(00)00078-X

Tschannen-Moran, M., & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805. https://doi.org/10.1016/S0742-051X(01)00036-1

Tschannen-Moran, M., & Woolfolk-Hoy, A.W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, *23*(6), 944-956. https://doi.org/10.1016/j.tate.2006.05.003

Tschannen-Moran, M., Woolfolk-Hoy, A.W., & Woolfolk-Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, *68*(2), 202-248. https://doi.org/10.3102/00346543068002202

U.S. Government Accountability Office. (2004). *No Child Left Behind Act: Improvement's needed in education's process for tracking states' implementation of key provisions* (document #GAO-04-734). http://www.gao.gov/new.items/d04734.pdf

U.S. Department of Education. (n.d.). *Great teachers and great leaders.* http://www2.ed.gov/policy/elsec/leg/blueprint/great-teachers-great-leaders.pdf.

United States Department of Education. (2009). *Race to the top program executive summary*. Washington, DC: Author.

Vacilotto, S., & Cummings, R. (2007). Peer coaching in TEFL/TESL programmes. *ELT Journal*, *61*(2), 153–160. https://doi.org/10.1093/elt/ccm008

Vogel, L. R. (2018). Learning outside the classroom: How principals define and prepare to be instructional leaders. *Education Research International*, 2018, 1-14. https://doi.org/10.1155/2018/8034270

Weisberg, D., Sexton, S., Mulhern, J., Keeling, D., Schunck, J., Palcisco, A., & Morgan, K. (2009). *The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness*. https://files.eric.ed.gov/fulltext/ED515656.pdf

Wieczorek, D., Clark, B., & Theoharis, G. (2019). Principals' instructional feedback practices during Race to the Top. *Leadership & Policy in Schools*, *18*(3), 357–381. https://doi.org/10.1080/15700763.2017.1398336

Wieczorek, D., & Theoharis, G. (2015). "We're Going to Make Lemonade Out of Lemons": Urban principals, emotion, and Race to the Top Implementation. *NASSP Bulletin, 99*(4), 281–303. https://doi.org/10.1177/0192636516636960

Yin, R. K. (2018). *Case study research and applications: Design and methods.* Sage.

Zwart, R. C., Wubbels, T., Bergen, T. C. M., & Bolhuis, S. (2007). Experienced teacher learning within the context of reciprocal peer coaching. *Teachers and Teaching: Theory and Practice, 13*(2), 165–187. https://doi.org/10.1080/13540600601152520

APPENDICES

Appendix A

List of *A Priori* Codes

List of A Priori Codes

- Performance Accomplishments
- Vicarious Experience
- Verbal Persuasion
- Physiological States

Appendix B

Teacher Beliefs Questionnaire

Teacher Beliefs

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

	None at all		Very Little		Some Degree		Quite A Bit		A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	1	2	3	4	5	6	7	8	9
2. How much can you do to motivate students who show low interest in school work?	1	2	3	4	5	6	7	8	9
3. How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5	6	7	8	9
4. How much can you do to help your students value learning?	1	2	3	4	5	6	7	8	9
5. To what extent can you craft good questions for your students?	1	2	3	4	5	6	7	8	9
6. How much can you do to get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
7. How much can you do to get students to believe they can do well in school work?	1	2	3	4	5	6	7	8	9
8. How well can you establish a classroom management system with each group of students?	1	2	3	4	5	6	7	8	9
9. To what extent can you use a variety of assessment strategies?	1	2	3	4	5	6	7	8	9
10. To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5	6	7	8	9
11. How much can you assist families in helping their children do well in school?	1	2	3	4	5	6	7	8	9
12. How well can you implement alternative teaching strategies in your classroom?	1	2	3	4	5	6	7	8	9

13. What is your gender?
- O Male
- O Female

14. What is your racial identity?
- O African American
- O White, Non-Hispanic
- O Other

15. What subject matter do you teach? (as many as apply)
- O All (Elementary/ Self-contained)
- O Math
- O Science
- O Language Arts
- O Social Studies

16. What level do you teach?
- O Elementary
- O Middle
- O High

17. What is the context of your school?
- O Urban
- O Suburban
- O Rural

18. What is the approximate proportion of students who receive free and reduced lunches at your school?
- O 0-20%
- O 21-40%
- O 41-60%
- O 61-80%
- O 81-100%

19. What grade level(s) do you teach? K 1 2 3 4 5 6 7 8 9

20. How many years have you taught? 0 1 2 3 4 5 6 7 8 9

For office use only. 0 1 2 3 4 5 6 7 8 / 0 1 2 3 4 5 6 7 8 / 0 1 2 3 4 5 6 7 8

Appendix C

Principal Interview Record

Principal Interview Record

School: Date: .

Principal: Interview #: Grade/Subject: .

Semistructured Questions:	
1. Describe the peer-to-peer program that you have at your school. 2. What are the expectations you have for your teachers? 3. What is explicitly told to teachers about what is expected of them? 4. Why did you decide to do this? 5. Do you think it is successful? Yes or no? Do you have any evidence? 6. Is there anything that I haven't asked that would help me understand better what is happening with the peer-to-peer activities here?	
Follow up Question:	Running Notes/Observations:
Follow up Question:	
Follow up Question:	
Follow up Question:	

New Concepts

Appendix D

Participant Interview Record Case 1

Participant Interview Record Case 1

School: Date: .

Teacher: Interview #: Grade/Subject: .

Semistructured Questions:	
1. Describe your professional background. How many years of you been teaching? How many years at this school? What grade-levels or subjects have you taught? How long have you been participating in the peer program at your school? Is this the only school you have done peer-to-peer mentoring at? 2. What has been your experience with peer mentoring? What has it looked like for you? 3. Please share your views about peer mentoring and feedback. 4. How much can you do to motivate or help students believe they can do well in school work when have low interest in learning? How has peer mentoring and feedback influenced that? 5. To what extent can you craft good questions? Use a variety of assessment strategies? And provide alternative explanations when students are confused? How has peer mentoring and feedback influenced that? 6. Are there other pedagogical or instructional skills that peer mentoring and feedback has influenced? Explain. 7. How much can you do to control or calm a disruptive class or student? How has peer mentoring and feedback influenced that? 8. Are there other classroom management skills you believe that peer mentoring and feedback has influenced. Explain. 9. What aspects of peer feedback are most helpful? Why? 10. What aspects of peer feedback are least helpful? Why? 11. Please share any other comments or thoughts about peer mentoring and feedback.	
Follow up Question:	Running Notes/Observations:

New Concepts

Appendix E

Participant Interview Record Case 2

Participant Interview Record Case 2

School: Date: .

Teacher: Interview #: Grade/Subject: .

Semistructured Questions:	
1. Describe your professional background. How many years of you been teaching? How many years at this school? What grade-levels or subjects have you taught? How long have you been participating in the peer program at your school? Is this the only school you have done peer-to-peer observation or feedback at? 2. What has been your experience with peer observations? What has it looked like for you? 3. Please share your views about peer observation and feedback. 4. How much can you do to motivate or help students believe they can do well in school work when have low interest in learning? How has peer observation and feedback influenced that? 5. To what extent can you craft good questions? Use a variety of assessment strategies? And provide alternative explanations when students are confused? How has peer observation and feedback influenced that? 6. Are there other pedagogical or instructional skills that peer observations and feedback have influenced? Explain. 7. How much can you do to control or calm a disruptive class or student? How has peer observation and feedback influenced that? 8. Are there other classroom management skills you believe that peer observations and feedback have influenced. Explain. 9. What aspects of peer observations are most helpful? Why? 10. What aspects of peer observations are least helpful? Why? 11. Please share any other comments or thoughts about peer observations and feedback.	
Follow up Question:	Running Notes/Observations:

New Concepts

Appendix F

Journal Prompts

Name:

Instructions: Please write responses below for each prompt. Use as much space as needed. Please email responses back within one week to Brady.Ridge@gmail.com.

Reflect on your experience before peer mentoring, peer feedback, or observing. How has your **ability to help students who show low interest or value in learning** changed since beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence what you do today?

Reflect on your experience before peer mentoring, peer feedback, or observing. How have your **classroom management skills** changed since beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence what you do today?

Reflect on your experience before peer mentoring, peer feedback, or observing. How have your **pedagogical skills** changed since beginning peer mentoring, peer feedback, or observing? Did peer-to-peer feedback affect you? If so, are there specific activities from peer-to-peer feedback that you can recall which influence your practice today?

Appendix G

Focus Group Participant Interview Record Case 1

Focus Group Participant Interview Record Case 1

School: Date: .

Interview #:

Semistructured Questions:	Running Notes/Observations:
1. What are the most helpful aspects of peer mentoring? Please explain why you see these as the most helpful aspects. 2. What are the least helpful aspects of peer mentoring? Please explain why you see these as the least helpful aspects. 3. If this was applied at different schools what aspects do you find most essential and which aspects would you change?	
Follow Up Question of Emergent Theme From Participant Interview:	Running Notes/Observations:
Follow Up Question of Emergent Theme From Participant Interview:	
Follow Up Question:	

Appendix H

Focus Group Participant Interview Record Case 2

Focus Group Participant Interview Record Case 2

School: Date: .

Teacher: Interview #: Grade/Subject: .

Semistructured Questions:	Running Notes/Observations:
1. What are the most helpful aspects of peer observations? Please explain why you see these as the most helpful aspects. 2. What are the least helpful aspects of peer observations? Please explain why you see these as the most helpful aspects? 3. If this was applied at different schools what aspects do you find most essential and which aspects would you change?	
Follow Up Question of Emergent Theme From Participant Interview:	Running Notes/Observations:
Follow Up Question of Emergent Theme From Participant Interview:	
Follow Up Question:	

CURRICULUM VITAE

BRADY RIDGE

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Education

PhD	2021	Utah State University, Logan, Utah Curriculum and Instruction
M.Ed.	2018	Utah State University, Logan, Utah Instructional Leadership
B.S.	2013	Brigham Young University, Provo, Utah Mathematics Education

Research Interests

My research interests aim to improve teaching by improving teacher education and administrative leadership. Much of my research deals with teacher self-efficacy. Currently, I am reviewing how teacher evaluation affects the self-efficacy of teachers, especially through administrator to teacher feedback. Additionally, I am exploring how peer-to-peer feedback and mentoring can be a tool to assist administrators in improving the instruction in their building through building teacher self-efficacy. In the future, I desire to continue researching how to improve instructional leadership and teacher self-efficacy.

Professional Experience

Seminary/Institute Teacher **2013-Present**
Timpanogos High School Seminary, Orem, Utah

Seminary Responsibilities included: Teaching high school age students seminary courses. Leading a seminary student council. Mentoring new teachers. Working with parents and local community council leaders.

Institute Responsibilities included: Teaching one 3-credit evening class to college age students at Utah Valley Institute of Religion each semester. Currently

teaching Jesus Christ and the Everlasting Gospel.

Mathematics Student Teacher **2013**
Diamond Fork Junior High, Spanish Fork, Utah
Responsibilities included: Taught Secondary Math I and Secondary Math II. Taught special needs inclusion class. Participated actively in a Professional Learning Community.

MTC Spanish Teacher **2010-2013**
Missionary Training Center, Provo, Utah
Responsibilities included: Taught LDS missionaries Spanish and teaching techniques. Mentored and trained new teachers. Led in-service meetings for approximately 20 teachers. Assisted in hiring of some new teachers.

Scholarly Activities

External Evaluator (2017)
Responsibilities included: Worked as external evaluator for the Robert Noyce Scholarship Grant at Utah Valley University (UVU). Participated in focus groups and interviews, used evaluation tools to determine effectiveness of student teachers' teaching, and wrote an extensive literature review to determine the effectiveness of a grant and scholarship program at UVU. Ensured they were abiding by terms of grant.

Peer Reviewed Publications

Ridge, B., & Lavigne, A. (2020). Improving instructional practice through peer observation and feedback: A review of the literature. *Education Policy Analysis Archives*, 28, 61. https://doi.org/10.14507/epaa.28.5023

Works in Progress

Ridge, B., & Longhurst, M. L., Peer to peer feedback and self-efficacy.

Conference Presentations

Ridge, B., & Longhurst, M. L. (January 2021). *Helping instructional leaders build teacher confidence and alleviate teacher stress through peer mentoring and feedback.* Presentation at Virtual Leadership Summit on Educator Mental Health & Wellness for Association for Supervision and Curriculum Development (ASCD).