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Considerations of Teacher Efficacy in Response to Video Analysis and Instructional Feedback from School Principal to Classroom Teacher

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THE UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF EDUCATION AND PROFESSIONAL STUDIES

CONSIDERATIONS OF TEACHER EFFICACY IN RESPONSE TO VIDEO ANALYSIS AND INSTRUCTIONAL FEEDBACK FROM SCHOOL PRINCIPAL TO CLASSROOM TEACHER

BY

Valerie Johnson

A Dissertation

Submitted to the Graduate Faculty of the
University of South Alabama
in partial fulfillment of the
requirements for the degree of

Doctorate of Education

in

Educational Leadership

December 2021

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by
Valerie Johnson
B.S., University of South Alabama, 1998
M.Ed., University of South Alabama, 2002
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December 2021

To my Lord and Savior, Jesus Christ, from whom all wisdom is given.

To my husband, Matt, and my two sons, Josh and Eric. Thank you for keeping me grounded and always making me laugh. Makayla, my new daughter-in-law, you are a perfect addition to our family, and you complement Josh so well.

To my parents, Cliff and Esther, who always held me to high expectations and loved me through my many mistakes.

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dedicated faculty and staff. This journey has been rewarding in countless ways, and my

hope is that my teachers and students remember me for my passion for teaching and

learning.

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ABSTRACT

Johnson, Valerie, Ed.D., University of South Alabama, December 2021. Considerations of Teacher Efficacy in Response to Video Analysis and Instructional Feedback from School Principal to Classroom Teacher. Chair of Committee: Benterah C. Morton, Ph.D.

Through analysis of a variety of data sources, there is evidence that students have not been academically successful and that change is needed to ensure that students can experience future success in college and career. Educators are encouraged to analyze and reflect on how their instruction impacts student learning, yet this is difficult because of time restraints that educators face. The use of video analysis can greatly influence the change process for teachers and can empower teachers to diagnose problems and assist them in prescribing effective strategies and practices that will have a positive impact on student learning. How can school leaders and teachers ensure that students are learning? How do teachers' efficacy beliefs affect their instruction? This study explores how the use of video analysis and engagement in the feedback cycle can influence teachers' efficacy beliefs and instructional decisions, further examining how a school leader can influence teachers' instruction by increasing self and collective teacher efficacy.

This phenomenological study found that the school principal can serve as a catalyst in leading changes in teachers' instruction through the use of video analysis, further showing that the principal's deep feedback, along with the video analysis treatment, had a positive influence on the teachers' instructional effectiveness and their

sense of teacher efficacy, both self and collective. This study implies (or supports the

literature in noting) that the interdependent constructs of teachers' sense of efficacy and

instructional effectiveness are important considerations in the field of education and hold

a pivotal role in the collective work to improve teaching and learning.

CHAPTER I

INTRODUCTION

The instructional leadership beliefs, attitudes, and practices of school principals support the degree of efficacy among teachers to improve instruction. Research suggests that leadership and teacher collaboration, in harmony with one another, contribute to instructional effectiveness as a result of the strengthening of collective efficacy beliefs (Goddard et al., 2015). Goddard et al. (2015) found a significant outcome of leadership on teacher collaboration establishing that achievement differences in various schools were directly predicted by collective efficacy beliefs and that instructional leadership and teacher collaboration indirectly predicted achievement differences. These findings suggested that a strong instructional leader within a school can be a catalyst to facilitate teacher collaboration with the goal of strengthening belief systems that resulted in increased student learning (Goddard et al., 2015). When the collective efficacy beliefs of the teachers were robust, then the levels of student achievement were higher, even after controlling for demographics and prior levels of student achievement (Goddard et al., 2015).

The Goddard et al. (2015) study identified a gap in research regarding *how* a school principal can influence the teacher change process and is the heart of what this dissertation research will entail. The Goddard et al. study (2015) sought to discover a

connection between principal leadership and teachers' collective efficacy and posited that schools in which principals closely monitor instruction and provide strong support to teachers are most likely to be characterized by teachers who collaborate to positively impact instruction. The focus of this dissertation was on exploring how the use of video analysis and engagement in the feedback cycle influenced teachers' efficacy beliefs and instructional decision-making. This study is important because there is little research that examines how video analysis might assist teachers and principals in improving instructional effectiveness and teachers' efficacy beliefs.

This dissertation examined if teachers' instructional decisions and efficacy were influenced when teachers and school principals utilized video analysis and a feedback cycle. Video analysis was used as the treatment and as a tool for reflection after the observations occurred. The focus of this research was on improvement of instructional decision-making and teacher efficacy. While principals continuously evaluate teachers' instruction, evaluation of teachers was not a component of this research. There was already a significant body of research that showed that the use of video analysis was helpful to teachers (Hollingsworth & Clarke, 2017; Hougan et al., 2018; Knight, 2014a). However, there was a dearth of recent research in the change process and whether it impacted teachers' instructional improvement. The researcher, as a practicing school principal, researched how the school leader can facilitate change to instructional practices, thereby, directly impacting teachers' sense of efficacy and indirectly impacting students' learning and achievement. Additionally, the effects of teachers' self-efficacy and collective efficacy were examined to determine whether a higher level of self-

efficacy and or collective efficacy as a result of video analysis and instructional feedback influenced instructional decisions.

Background

For decades, school districts across the United States have grappled with how to effectively improve teachers' instruction, thereby impacting student learning and achievement. A plethora of research exists that examines the responsibility of the American educational system to provide students with applicable and relevant knowledge that will empower them with the knowledge and skills needed for college and career success (Kessinger, 2011; NCEE, 1983; Robinson, 2018). No Child Left Behind (2001), Race to the Top (2009), and the Every Student Succeeds Act (2015), initiatives led by the federal government, were herculean efforts to improve American students' achievement, yet all left much to be desired in terms of actual student outcomes (Kessinger, 2011; Robinson, 2018). Despite these efforts to improve America's educational system, most research indicates that students' learning and achievement has decreased in recent years (Kessinger, 2011; NCEE, 1983; Robinson, 2018).

Since *A Nation at Risk* (1983) was released, the American educational system has been scrutinized. The National Commission on Excellence in Education wrote, "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur- others are matching and surpassing our educational attainments" (NCEE, 1983, p. 9). This study propelled legislators, educators, communities, and business leaders to take notice of the lack of educational excellence that American students exhibited. The *A Nation at Risk* report alleged, "For

the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach, those of their parents" (NCEE, 1983, p. 12).

There are other sources that follow the scrutiny of *A Nation at Risk* (NCEE, 1983)*. The National Assessment of Educational Progress (NAEP) is considered by many educational practitioners and researchers to be an accurate measure of the academic progress of students in the U.S (Shepard, 2016). NAEP, known as the nation's report card, is given every two years to fourth grade and eighth grade students in math and reading at a statistically valid sample of schools and students in each state. The NAEP was first given in 1969 and states participated on a voluntary basis. All states were required to participate beginning in 2003 (NAEP, n.d.).

Alabama, in particular, has always scored below the national average in both reading and math according to NAEP (U.S. Department of Education, Institute of Education Sciences, 2011). This suggests that the educational system needs vast and systemic improvements. While many states' NAEP scores show dramatic improvement, Alabama's 2019 scores reveal a trend of losing ground in NAEP results. Alabama's NAEP scores showed improvement in the 1990s, but the 2019 NAEP scores as reported by Crain (2019) reveal that Alabama's students scored 52nd in math, behind all states, Washington, D.C., and the Department of Defense schools. In addition, the reading scores rank Alabama in 49th place.

School Principals as Leaders of Change

Hallinger (2005) suggests that the need for principals to be instructional leaders is not a passing fancy. Accountability measures are in place for all 50 states, and principals

bear much of the responsibility of this accountability. To ensure that students can achieve, it is important that teachers are effective and have the resources and abilities to help students learn at high rates (Hattie, 2009). The role of school principal has changed dramatically in recent years and now requires principals to be instructional leaders with the ability to lead efforts to significantly improve student learning and achievement (Morton & Upton, 2020). Principals must be equipped to deliver detailed and timely feedback to teachers, and the use of video can assist administrators and teachers in observing the same reality and working together to improve instruction (Baecher & McCormack, 2014; Knight, 2014b). Principal feedback is key to instructional effectiveness and student learning, and a structure that promotes reflective inquiry is needed for both principals and teachers (Anast-May, 2011; Flushman et al., 2019; Houtchens et al., 2012; Knight, 2014b).

Teachers' Self-Efficacy and Collective Efficacy

Goddard et al. (2015) suggest that leadership and teacher collaboration, in harmony with one another, may contribute to instructional effectiveness as a result of the strengthening of collective efficacy beliefs, further finding that there was a "significant direct effect of leadership on teacher collaboration" (p. 501). Additionally, Goddard et al. (2015) established that achievement differences in various schools were directly predicted by collective efficacy beliefs and that instructional leadership and teacher collaboration indirectly predicted achievement differences. The findings from this study suggest that a strong instructional leader within a school can be a catalyst to facilitate teacher collaboration with the goal of strengthening belief systems that result in increased student learning (Goddard et al., 2015).

Research indicates that when a strong sense of collective teacher efficacy is evident in a school, student performance increases (Brinson & Steiner, 2007; Jerald, 2007). In a study of 452 teachers in 47 schools, when a school's collective efficacy score increased by one point, student achievement scores increased by 8.5 points (Brinson & Steiner, 2007). In schools where principals strive to build collective teacher efficacy, greater improvement in student achievement is realized (Brinson & Steiner, 2007). The effects of teachers' self-efficacy and collective efficacy were examined to determine whether a higher level of self-efficacy and or collective efficacy influences instructional improvement. According to social cognitive theory (Bandura, 1989), educators who do not believe they will be successful with certain students most likely will not put forth their best effort in their instructional planning and delivery. "Self-efficacy beliefs can therefore become self-fulfulling prophesies" (Tschannen-Moran & Hoy, 2007, p. 945). A significant body of research exists that supports the belief that collective teacher efficacy has a positive impact on students' learning and achievement (Bandura, 1993; Eells, 2011; Goddard, 2001; Hattie, 2009). In 2016, Hattie ranked collective teacher efficacy, with an effect size of 1.57, as the most important factor in increasing student achievement based on Eells' meta-analysis (Eells, 2011; Hattie, 2016). Jerald (2007) found that teachers who have a strong sense of responsibility have a positive impact on student learning outcomes. This research supports that teacher efficacy has a positive impact on student achievement. Furthermore, Ross & Gray (2020) established that teachers who are committed to a school and its students and have a strong sense of efficacy and work harder toward student achievement goals.

The Use of Video Analysis to Improve Teaching and Learning

In an effort to improve teaching and learning, one method that holds promise is the use of video analysis, a practice that has been utilized and discussed since the 1970s. One of the earliest methods in utilizing video in the education realm was through microteaching, wherein teachers record a short lesson and share it with their peers. The lesson is reviewed for strengths and weaknesses, and then the teacher reteaches the lesson. The concept of microteaching was first developed at Stanford University in the early 1960s (Knight, 2014a; Lenihan, 2016). Tschannen-Moran and Hoy (2007) found that microteaching experiences can hold powerful results on teachers' self-perceptions of teaching competence.

Microteaching has been used for three decades in nations around the world and is a valid use for professional development (Lenihan, 2016; Tripp & Rich, 2012). In recent years, however, this method has evolved into one that encourages educators to become more reflective in their practice, thereby enabling them to critically consider the effects of specific actions within the classroom environment. Previous research studies have consistently noted the impact that video analysis can have on helping teachers reflect on their instruction (Tripp & Rich, 2012). Hattie (2009) writes that microteaching, with an effect size of 0.88, is one of the most effective teaching strategies to promote student achievement. Yet, Lenihan (2016) argues that schools have missed the potential of microteaching because the method is mostly absent in day-to-day teaching.

Technological advances have significantly enhanced the use of video for the purpose of teachers' reflection and analysis. There are a multitude of video tools that enable teachers to view, analyze, and share their instruction with their colleagues

(Baecher & McCormack, 2014; Hougan et al., 2018; Tripp & Rich, 2012). As a result, video is being used to facilitate analysis, reflection, and dialogue that has the potential to improve teaching and learning in a significant way (Baecher & McCormack, 2014). Baecher & McCormack (2014) examined how video-based observations might alter post-observation dialogue between teacher candidates and their supervisors. The findings suggest that the content and extent of candidates' reflection was impacted by video (Baecher & McCormack, 2014).

Visible Learning

The achievement of quality implementation of evidence-based practices remains an enigma in the American educational system; therefore, it is imperative to identify key research and conditions that will assist teachers in meaningful ways to inform pedagogy (Donohoo et al., 2018; Hattie, 2009). DeWitt (2018) found:

> Hattie's Visible Learning research (2009) has had a profound impact on educators and students around the world. The research has provided educators and leaders with the opportunity to have deep conversations around their practices in the classroom and school and has inspired many to look at those practices and reflect on whether they are having the deep impact on learning they think (pg. 7).

Translating Visible Learning research (Fisher & Frey, 2018; Hattie, 2009) and constructs into practice can significantly improve student learning. The aim of educators should be to discover 'what works best', instead of simply 'what works' to ensure that the strategies and influences which have the greatest potential to positively impact student achievement are implemented (Donohoo et al., 2018; Hattie, 2009; Knight, 2018).

How do teachers and administrators effect true change that is geared toward instructional effectiveness and thereby impacts student learning? There is little research that addresses how the analysis of video influences the teacher change process, and even less research on how school principals and teachers can partner together to impact teaching and learning. Throughout this discussion of low achievement scores, the benefits of video analysis, and teachers' efficacy beliefs, school leaders should consider how they, along with teachers, can effect true change that is focused on improving students' learning and achievement.

Statement of the Problem

Through analysis of Alabama's test scores, the need to implement changes is evident to ensure that Alabama's students can succeed in college and career. Hattie (2009) posited, "the practice of teaching has changed little over the past century" (p. 5). There is a plethora of research and instructional techniques and strategies, yet more and more students are unsuccessful on their learning path. Fasching-Varner et al. (2014) write that decades of reform have not rendered any meaningful gains for America's students, in particular, for students of color. Further, Fasching-Varner et al. (2014) postulate that many educational inequities continue to exist, especially for Black and Latino populations, and although various programs and approaches have been attempted, their meta-analysis reveals that public schooling continues to be segregated and federal and state systems only maintain the status quo. Hattie (2009, 2012) encourages educators, university professors of teaching, researchers, and other stakeholders to work collaboratively to discover not only what works, but what works best. Donohoo et al. (2018) note that, "It is not a matter of improving the supply of research but rather

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identifying the key features of research and conditions in schools that assist teachers in using research in meaningful ways to inform pedagogy" (p. 2). Specifically, Donohoo et al. (2018) ask educators to consider the changes needed to impact teachers' and students' learning.

Educators are encouraged to analyze and reflect upon their instruction so that they can increase their impact on student learning (Knight, 2018). However, it is difficult for teachers and administrators alike to find time to deeply reflect and make true and lasting changes to teaching and learning. The use of video analysis can greatly influence the change process for teachers (Knight, 2014a). Hattie (2016) states that there can be limits to teacher reflection because the focus of the reflection is on the teacher and not the student. Knight (2014a) posits that video can eliminate this problem. The use of video analysis can empower teachers to diagnose problems and assist them in prescribing effective strategies and practices that will have a positive impact on student learning. The use of video should be utilized to assist teachers and administrators in instructional improvement and is vital to effecting significant change in educational settings (Knight, 2014a). Video is a powerful tool that provokes teachers' reflection and analysis of their instruction, and it carries the potential to maximize student learning (Ingvarson & Hattie, 2008; Kane et al., 2014; Tripp & Rich, 2012).

How can school leaders and teachers ensure that students are learning? How do teachers' efficacy beliefs affect their instruction? Just because teachers are teaching does not mean that students are learning. The current research aimed to explore how the use of video analysis and engagement in the feedback cycle can influence teachers' efficacy beliefs and instructional decisions. Additionally, the researcher sought to examine how a

school leader can influence teachers' instruction by increasing self and collective teacher efficacy.

Methodology

The design for this qualitative study employed a phenomenological approach and took place in an elementary school setting. The participants were a convenience sample because these were the teachers to whom the principal and researcher had access. Teachers participated on a voluntary basis. Qualitative data was collected from the Visible Learning Implementation Fidelity Checklist Self-Assessment (see Appendix A) and focus group sessions. The surveys were given to teachers via email, and the responses were anonymous. The focus group interview sessions were conducted at the end of the study.

All of the participants received the treatment: video recording and analyzing the video after the classroom observations were complete. This treatment was needed to determine if a level of difference was realized when video analysis was utilized to improve instructional feedback from the researcher and classroom teacher and to measure whether video influenced teachers' sense of self and collective efficacy.

Purpose

The purpose of this study was to explore how the use of video analysis and engagement in a feedback cycle influenced teachers' efficacy beliefs and instructional decisions. Qualitative data was collected through responses given by teachers in the instructional feedback sessions and focus group interview sessions. The focus was on

empowering individual teachers to determine their own professional learning and development goals and on improving teacher self-efficacy and collective teacher efficacy.

The following research questions guided the study:

1. In what ways did the use of video analysis influence teachers' instruction?

2. In what ways did the use of video analysis influence teachers' self-efficacy?

3. In what ways did the use video analysis influence teachers' collective efficacy?

4. How did participating teachers' perceptions of video analysis and instructional feedback cycle differ from the beginning of the treatment to the end?

Justification

The results of this study are important to the field of education so that teachers, principals, and state and district personnel can use the results to inform their future decisions on which processes, procedures, and routines can improve teachers' instruction and efficacy when video analysis is utilized (Knight, 2014a). The use of video analysis has the potential to greatly impact teachers' instruction (Knight, 2014a). Additionally, the use of video analysis may increase teachers' sense of efficacy, both self and collective (Hollingsworth & Clarke, 2017; Hougan et al., 2018; Knight, 2014a; Tripp & Rich, 2012). When teachers learn to become self-analytical, improvement naturally occurs and teachers develop more expertise that will enhance instructional strategies and practices, thereby increasing instructional effectiveness (Jerald, 2007). This, in turn, may impact student learning and achievement.

There is a need to examine this subject because there is a dearth of research that addresses how video can impact teachers' instruction and efficacy. There is a sizable amount of research on the utilization of video for teacher development (Tripp & Rich, 2012), yet more research is needed to determine more specifically the processes, procedures, and routines that will provide the most improvement for teachers. Consequently, this study will contribute to the gap in knowledge by making connections between the tools and processes that school principals use to provide feedback to teachers and utilizing video analysis as the treatment.

There is little research that addresses how the analysis of video influences the teacher change process (Tripp & Rich, 2012), and even less research on how school principals and teachers can partner together to improve instructional effectiveness. The feedback cycle can be greatly beneficial and is "among the most powerful influences on how people learn" (Hattie, 2012, p. 18). However, Hattie warns against ineffective feedback. Instructional feedback from school principals is an important component for monitoring teachers' instruction and student learning and can provide teachers with strategies and practices for improvement (Balyer & Oxcan, 2020). Hattie (2009) and Lenihan (2016) discuss the importance of giving and receiving quality feedback that will positively impact teaching and learning. Yet, in order for improvement to occur, principals must have the ability to provide constructive and targeted feedback that will improve instruction. This research is applicable to teachers' instruction and can clarify teachers' and administrators' perceptions of self-efficacy and collective teacher efficacy based on analysis of video and engagement in an instructional feedback cycle.

Delimitations

The author was limited in the exploration of traditional and normal implementation because the research occurred during and immediately following the blended learning required by the school district in response to COVID-19. This research was conducted at one elementary school with eleven teachers; thereby, this research was limited in scope. The researcher is the principal of the school that was examined. The researcher and teachers were limited in their ability to meet face-to-face with all students in a typical classroom setting and with one another in a regular school setting due to COVID-19. Therefore, the treatment of video analysis required some adaptations to traditional school procedures. The length of the study was approximately three months, and as a result, the researcher was not able to examine long-term effects of video analysis in regard to feedback from the school principal to teachers. Additionally, some of the survey results may be somewhat skewed due to various situations where teachers feel differently as a result of COVID-19 in comparison to their feelings during a traditional school year and school setting.

Definitions

Self-efficacy: beliefs or confidence in one's capabilities to organize and execute the courses of action required to produce given levels of attainments and to make learning happen (Bandura, 1989; Hattie, 2009).

Collective teacher efficacy: a group of people's beliefs that they can collectively produce desired results to positively impact students' learning (Bandura, 1989; Hattie, 2009).

Visible Learning: developing an understanding of the impact that instructional efforts have on students' learning; how teachers determine how to know that students have learned (Fisher et al., 2016).

Effect size: the magnitude of the impact that a given approach has on students' learning; compares results over time and between groups (Fisher et al., 2016).

Hinge point: the average of all influences included in *Visible Learning* meta-analyses; this average is 0.40 (Fisher et al., 2016).

Meta-analysis: a statistical tool used to combine findings from different studies and identifies patterns that can inform practice (Fisher et al., 2016).

Micro-teaching or video analysis: a technique used for instructional improvement in which a teacher delivers a lesson that is analyzed by the teacher and/or colleagues and leaders; lessons are videotaped to provide an exact representation of the lesson and with subsequent analysis (Visible Learning Metax, 2020).

Phenomenology: a qualitative strategy in which a researcher analyzes the essence of lived experiences as expressed by study participants (Creswell, 2009).

Assumptions

The author assumed that the survey responses given by the teachers were honest and truthful. Additionally, it was assumed that the researcher and teachers used their best professional judgment in determining how to provide effective instruction in the midst of COVID-19. When viewing videos of oneself and of others', it is assumed that the privacy of students and teachers will be honored and that the videos will not be shared with anyone other than the researcher and teachers at the school. It is assumed that the

qualitative focus group sessions that were conducted supported the unique and important

perspectives of teachers.

CHAPTER II
REVIEW OF LITERATURE

Introduction

This literature review begins with a description of the theoretical framework and then describes the impact that video analysis may have on teachers' instruction and students' learning. The focus of the review of literature is on how the school principal might serve as a catalyst in forging paths to effect true change in instruction that will have a positive impact on student learning. The primary path that is investigated is the use of video analysis and how the school principal can utilize feedback to assist teachers in developing a sense of efficacy that will then improve their instructional decisions. The researcher seeks to examine if a level of difference is achieved in instructional decision-making when video analysis is utilized.

There is little research that addresses how the analysis of video influences the teacher change process, and even less research on how school principals and teachers can partner together to impact teaching and learning. This dissertation aims to examine if a level of difference is realized in the improvement of teachers' instruction and efficacy when teachers and school principals utilize video analysis. There is already a significant body of research (Baecher & McCormack, 2014; Tripp & Rich, 2012) that shows that the use of video analysis is helpful to teachers. However, there seems to be a dearth of recent

research in how change occurs and lasts in teachers' instructional improvement. The researcher, as a practicing school principal, will explore how the use of video analysis and engagement in a feedback cycle can influence teachers' efficacy beliefs and instructional decision-making. The educational construct, Visible Learning, will be discussed and will be used to inform this qualitative study.

Theoretical Framework

This research is grounded in the work of Fuller and Manning (1973), Schon (1983), Bandura (1989, 1993), and Hattie (2009). Fuller and Manning (1973) established seminal research in video analysis, and this research, in concert with Schon (1983) and Bandura's (1989) work, will be discussed to define how teacher efficacy, both self and collective, can improve teaching and learning. Visible Learning research (Hattie, 2009) will be used as the construct for the implementation of the current study.

The Advent of Teacher Efficacy

A large body of research exists on the idea of collective teacher efficacy. This research began in the mid-1970s when a team of RAND Corporation researchers asked two questions on an extensive questionnaire given to reading teachers. The first question was "When it comes right down to it, a teacher can't really do much because most of a student's motivation and performance depends on his or her home environment." Secondly, the teachers were asked, "If I really try hard, I can get through to even the most difficult or unmotivated students" (Jerald 2007, p. 3). Powerful results were found in the results of these questionnaires, and the concept of teacher efficacy was born.

Bandura's Social Cognitive Theory and its Influence on Efficacy

Bandura's (1989) social cognitive theory further influenced the frameworks of self-efficacy, teacher efficacy, and collective teacher efficacy. Self-efficacy is an important component of Bandura's social cognitive theory and was a precursor to teacher efficacy, a type of self-efficacy identified for school settings. Bandura (1989) defined self-efficacy as the "beliefs in one's capabilities to organize and execute the courses of action required to produce given levels of attainments" (p. 3). The attitudes and beliefs of teacher efficacy were expanded by Bandura (1993) to define collective teacher efficacy as a group of people's beliefs that they can collectively produce desired results. Goddard (2001) and Hattie (2012) furthered this understanding and defined self-efficacy for students as confidence or a strong belief that students have in themselves to make their own learning happen".

Researchers have discovered that teacher efficacy beliefs "exert an indirect influence on student achievement by virtue of the direct effect they have on teachers' classroom behaviors and attitudes" (Jerald, 2007). Teachers with a strong sense of efficacy are (1) more effective at planning and organization, (2) are open to new ideas and willing to experiment with new methods, and (3) have better persistence and resilience when faced with setbacks and difficulties (Jerald, 2007). Research abounds that shares the positive impact that collective efficacy has on students' achievement (Bandura, 1993; Eells, 2011; Goddard, 2001). DeWitt (2018) writes that collective teacher efficacy is more important now than ever before given the challenges that educators face. Because of increased accountability measures and mandates, mental health issues, budget cuts,

and a myriad of other problems, teachers should no longer work in "silos", and school

leaders should promote and support the development of collective teacher efficacy.

The theoretical research findings from Bandura (1993), Eells (2011), and Goddard

(2001) inform the researcher by offering context to current and best practices in regard to

teachers' instruction and student learning and achievement. In tandem with these two

concepts, Bandura's (1989, 1993) social cognitive work regarding teacher efficacy

further influenced the current research, while Hattie's (2009) meta-analyses on Visible

Learning provided recent data in relation to the impact of teacher efficacy on student

learning. Hattie's research (2012) finds that collective teacher efficacy has a 1.57 effect

size; this is significant and should cause educators to consider the relationship of

collective teacher efficacy to student learning. Drawing from the theoretical context

presented, this research adheres to these definitions of self-efficacy, (beliefs or

confidence in one's capabilities to organize and execute the courses of action required to

produce given levels of attainments and to make learning happen) and collective efficacy

(a group of people's beliefs that they can collectively produce desired results to positively

impact students' learning (Bandura, 1989; Hattie, 2009))."

Development of Self-reflection as a Result of Video Record

Fuller and Manning (1973) underscored the power of video in the development of

self-reflection because the video record caused the viewer to experience dissonance in

resolving what actually occurred versus what is remembered or perceived. This research

also pointed to how powerful the use of video can be in helping a teacher see what

actually occurred in a lesson in comparison to what is remembered. Video does not lie. In

addition, Schon's (1983) research regarding the need for teachers to reflect *on* action

along with reflecting *in* action will play a part in the theoretical framework. According to

Schon (1983), the process of reflecting *on* action is focused on next steps in instruction in

relation to monitoring student learning while reflecting *in* action refers to how teachers

respond to students during actual instruction. Schon (1983) applied a methodology that

he used as "conversation analysis for close examination of talk-in-action" (p. 158). The

research of Fuller and Manning (1973), paired with the work of Schon (1983), illustrates

the significance of how the use of video can provide powerful results to assist teachers in

reflecting on their teaching.

Impact of the Use of Video Analysis

for Instructional Improvement and Increased Student Learning

Video is a powerful tool for professional development and has the potential to

maximize student learning. Video analysis can "influence the process that leads teachers

to reflect on and subsequently change their teaching" (Tripp & Rich, 2012, p. 728). Tripp

& Rich (2012) found that, through video analysis, teachers noticed things about their

instruction that they did not remember, and they had a better ability to assess their own

strengths and weaknesses. The use of video can give teachers a crystal-clear picture of

true reality, and as a result, they can set specific, student-focused goals (Knight, 2018).

Knight found that video cameras have a positive impact on teaching and learning, noting,

"Video changes everything… Used effectively, in a way that honors teachers'

professionalism and learning, video can be the most powerful improvement we have

experienced in our schools in a long time" (2014a, p. xi). Further, Knight (2014a) posits

that video will completely change educators' professional learning experiences. To

improve teaching methods, educators should understand what current teaching methods

entail. It is impossible to accomplish this if perceptions are based only on perceptions or even feedback from observers (Knight, 2014a).

The process of National Board Certification has motivated 115,000 teachers in all 50 states to watch themselves teaching on video (Knight, 2014a). The National Board for Professional Teaching Standards (NBPTS) "is the most ambitious attempt by any country to establish a certification system for teachers who reach high professional standards" (Ingvarson & Hattie, 2008) and has required video evidence for their applications for certifications since its inception in 1987. The National Board was established in response to *A Nation at Risk* (Knight, 2014a) and encourages the development, retention, and recognition of accomplished teaching. NBPTS encourages teachers to deeply analyze and reflect on their planning and implementation of instruction and assessment through the lens of their Standards (National Board for Professional Teaching Standards, n.d.). Throughout the National Board process, educators defend how and why they teach through video analysis and reflection. It is a thought-provoking and reflective process that empowers teachers to move forward in their application of impacting student learning. A study that measured teachers' perceptions of their teaching capabilities before and after portfolio completion for the National Board found that teachers described statistically significant improvements in assessment areas (Ingvarson & Hattie, 2008). The teachers in the Ingvarson and Hattie (2008) study asserted that the requirement to videotape their instruction made them cognizant of how to coordinate teaching and learning tasks, how to evaluate student learning, and how to provide effective interventions when appropriate (Ingvarson & Hattie, 2008).

The adoptions of teacher performance assessment such as National Board certification have consequently necessitated that teachers and teacher educators re-imagine their preparation of pre-service and in-service teachers to think and discuss their planning, teaching, and assessment. When teachers learn how to analyze their classroom practice by using video analysis, they are more apt to continue this reflective process during their teaching careers (Hougan et al., 2018). In recent years, an emphasis on teacher noticing, when a teacher notices an element of students' understanding or lack of understanding and how the student responds, while engaging with video analysis has occurred.

Knight (2014a) has researched the use of video for instructional improvement and found that using video, in a manner that respects the teaching profession, improves teaching and learning. Hougan et al. (2018) found that videos enable educators to engage in meaningful discussions that are based on shared viewing and reviewing. School principals have used video with teacher evaluations and discovered that by using video as part of the dialogue between teachers and principals, they can have a professional and rich conversation regarding the specifics of the teacher's instruction and students' learning interactions (Knight, 2014a). The use of video allows the teacher and administrator to have a clear picture of reality and to have a meaningful discussion about next steps. Additionally, the use of video and videoconferencing offers teachers and administrators flexibility in determining when they want to watch the video. More specifically, technology allows educators to receive feedback on their own schedule without being interrupted during the school day (Carmouche & Thompson, 2018).

Knight shared three reasons why educators do not have a clear picture of their own instruction. First, teaching is an "all-encompassing intellectual task" (2014a, p. 21), and it is difficult and time-consuming for a teacher to consider exactly what is happening in any given moment. Secondly, teachers are likely to experience habituation, the process of becoming used to what is observed daily (Knight, 2014b). Often teachers' understanding of class dynamics become less accurate over time. Lastly, human beings are likely to seek out information that supports their own preconceived notions, and as a consequence, most teachers do not know what their students experience in their classrooms. Combined, Knight's reasons can cause problems when the school principal delivers a poor evaluation after noticing class dynamics and students' reactions to instruction. Additionally, the principal has access to additional school-wide data of which the teacher may be unaware. As a result, the principal has a holistic view of the individual teacher's instruction whereas the teacher only sees their class and personal perspective. However, when video is utilized in classroom observations, it reveals an accurate picture of what is occurring. This clear picture of reality can improve teachers' understanding of their strengths and weaknesses and can provoke teacher learning (Knight, 2014b).

Alternative Approach to Traditional Classroom Observations

In the Best Foot Forward Project, led by the Center for Education Policy Research at Harvard University, researchers investigated an alternative approach to conventional classroom observations (Kane et al., 2014). The hypothesis of the study was that video-based observations would produce larger improvements in student achievement than would in-person observations. Specifically, the focus was on allowing teachers to see previously unrecognized aspects of their teaching through the use of video. Additionally,

the researchers expected to find that incorporating video evidence into the feedback

conversations would enable teachers and supervisors to more readily identify specific

changes that might improve teachers' instruction. The core philosophy of the treatment

was that the classroom teachers should have control of the camera and have the autonomy

to choose which lessons to submit for observation in order to put their "best foot

forward". Teachers submitted their own videos in lieu of in-person observations by

school administrators. The primary advantage of video over in-person observations is the

provision of more detailed and objective records, rather than the traditional note-taking

system that often does not truly capture and intricacies of a teacher's instruction and

students' learning interactions (Kane et al., 2014).

The findings from the Best Foot Forward project show that teachers included in

the treatment were "statistically significantly less likely to report that their conversations

had been adversarial" (Kane, et al., 2014, p. 8). In addition, this group was sixteen

percent more likely to show evidence of their ability to identify a specific change needed

as a result of the post-observation dialogue. Administrators included in the treatment

were 28 percentage points more likely to say that teachers were less defensive during the

post-observation conference. However, treatment principals did not share the confidence

level that teachers did regarding the belief that video would lead to instructional

improvements. Principals expressed concerns about substituting video observations for

in-person observations. They seemed to hold the belief that "video was a poor substitute

for physical presence when it came to understanding students' learning" (Kane, et al.,

2014, p. 9). Building from the approach taken by Kane et al. (2014), this study will allow

the campus principal to (1) control the video camera, (2) observe both teacher and student interactions in person as the lesson is being recorded.

The Use of Feedback with Video Analysis

In the previous section, an alternative approach to traditional classroom observations was discussed. This section addresses another approach which holds the possibility to disrupt supervisors' typical domination of observation feedback. The value of Baecher and McCormack (2014) lies in the connection of research between supervisory conferencing and the use of video in teacher development; little research has been done on this connection. This connection is a persistent dilemma for supervisors because they must simultaneously adopt two stances: serving as evaluators *of* performance and coaching *for* that performance. This paradox can lead to tensions that play out in post-observation conferences. To alleviate these tensions, video can be employed as a resource for educators who want to improve their pedagogical knowledge base, observational skills, and self-assessment abilities. If school principals and in-service teachers implement this process, it has the capacity to go beyond a relatively limited and somewhat shallow process by providing educators with a tool to assist them in becoming truly reflective practitioners (Baecher & McCormack, 2014).

Tripp and Rich (2012) found four themes in their examination of how video analysis influenced the process of teachers' reflection and making a subsequent change in instruction. When teachers utilized video analysis for reflection of instruction, they reported a change process that consisted of the following steps: (a) recognized the need to change, (b) brainstormed ideas for change, (c) implementation of the ideas, (d) evaluation of changes that were implemented. The teachers reported that video analysis was

valuable during each stage. They also noted that they were more likely to shift their practices when they used video than on previous feedback methods they had used. Tripp and Rich (2012) found that teachers who were given opportunities to view and discuss their videos felt that this was the most valuable component in their learning process about instructional improvement. In addition, teachers reported that video-based feedback was more helpful than administrator observational feedback without video.

Hollingsworth and Clarke (2017) found that when teachers scrutinized video-recorded lessons that focused on previously agreed-upon observation elements, and then participated in feedback dialogue, deep teacher reflection and learning occurred, further noting that conversations and feedback derived from video observations can facilitate deep analysis and reflection about fine-grained evidence and elements of a teacher's instruction. Hollingsworth and Clarke (2017) acknowledged the pivotal importance of teacher agency in determining learning opportunities, positing that feedback from shared video observations was a powerful influence on teacher and student learning. It is evident that reflection is key to the change process. Tripp and Rich (2012) encapsulated the definition of reflection as "a self-critical, investigative process wherein teachers consider the effect of their pedagogical decisions on their situated practice with the aim of improving those practices" (p. 678). These two studies emphasize the need for teachers to engage in deep analysis and reflection with the purpose of improving their instruction, thereby impacting student learning and achievement.

Literature from the last decade has shown that the use of accomplished teacher videos can potentially buttress pre-service teachers' professional learning (Hougan et al., 2018). Several platforms such as ATLAS, TeacherTube and the Teaching Channel allow

teachers the opportunity to watch expert teacher videos that highlight expert practice. Yet there are limitations to these platforms because they do not allow observers to understand the expert teacher's thought process in planning and instruction. Hougan et al. (2018) found that the pairing of video and commentary helped the pre-service teachers recognize some of the complexities of the decision-making process that expert teachers use when planning, teaching and analyzing their own practice.

Video is widely used as a resource for educators who want to improve their pedagogical knowledge base, observational skills, and self-assessment abilities. If school principals and teachers implement this process, it has the capacity to go beyond a relatively limited and somewhat shallow process by providing educators with a tool to assist them in becoming truly reflective practitioners (Baecher & McCormack, 2014). Nevertheless, Knight (2014b) cautioned educators of problems that might occur with using video. If the videos are used as tools for control, such as for summative evaluations and teacher retention, it is possible that this practice could profoundly damage the morale of teachers and significantly decrease the likelihood of positive impact on teaching and learning. However, the findings that promote the use of video analysis are overwhelmingly positive, and this warning has not been echoed by recent researchers.

Changing Role of School Principal

The role of school principal has changed in recent years (Hallinger, 2005). In the past, the school principal was expected to be a manager and to organize and oversee various activities, e.g. student discipline, textbook orders, building maintenance, parent complaints, etc. More recently, however, university programs are training school

administrators to be instructional leaders with the focus on leading instructional efforts

that will improve student learning and achievement (Mihaly et al., 2018).

For decades, school administrators have observed teachers' classrooms and have

taken copious notes and spent countless hours writing feedback for teachers for the

purposes of instructional improvement and evaluation (Knight, 2014a). Sometimes a

face-to-face meeting is held between the administrator and teacher, and there is an

opportunity for dialogue about the teacher's instruction. Often these conversations take

place several days after the actual observation, and it is difficult for both participants to

remember what happened, even with detailed notes and feedback, causing various issues

(Knight, 2014a). For example, when neither the teacher nor the administrator can recall

the exact words of the instructor or the students from the observation, it is nearly

impossible to provide adequate and responsive feedback that will allow the teacher to

reflect and analyze in order to improve. In this example, the feedback and evaluation of

how the lesson went is loosely based on actual evidence but instead upon the perceptions

of the observer and the teacher. Because there is no fine-grained evidence of what

actually occurred during the lesson, the administrator often cannot give examples of what

the teacher said and how the students responded. While it is possible to contain several

minutes of actual evidence, it is not possible to script an entire thirty or forty-five-minute

lesson and then have a productive and meaningful discussion about the observation

(Knight, 2014a).

As a result of this changing role, principals must be equipped to provide detailed

and timely feedback to teachers. DeWitt writes, "It is vitally important for leaders to be

able to offer deep feedback to teachers" (2018, p. 5). Mihaly et al. (2018) report that

principal feedback may improve teacher practice if principals make targeted recommendations to teachers for professional development in specific areas identified in classroom observations. Such subjective evaluations designed to provide teachers with feedback may have positive lasting impacts on teacher practices and behaviors and on student achievement. With the increased focus on students' achievement scores, all educators in a school must prove that what they are doing is effective and has a high impact on students' educational success.

School principals should be well-equipped to provide constructive feedback and should be considered as experts. Carmouche and Thompson (2018) discussed supervisory coaching and how supervisors or experts can extend professional development for teachers by offering an in-depth study of the skill or strategy that is being coached, provide observations of demonstrations, and give ongoing and timely feedback through continuous practice. However, researchers question whether school principals actually provide effective instructional feedback to teachers (Balyer & Ozcan, 2020). The majority of teachers who participated in the Balyer and Ozcan (2020) study felt that school principals performed their classroom observations for the sole purpose of carrying out policy procedures, as part of their managerial roles toward evaluation and accountability duties. Rather than providing focused feedback geared to improve instruction, these teachers felt that school administrators' knowledge about teaching processes were out-of-date and that the administrators were ill-equipped to provide feedback regarding current instructional practices. In addition, the majority of participants stated that the feedback offered by principals and supervisors did not provide much content area expertise. Results also demonstrated that teachers expect to receive

specific and effective feedback from principals so that they can become more competent in their classrooms. Moreover, the observations and feedback cause anxiety and stress for teachers (Carmouche & Thompson, 2018).

Mette et al. (2017) highlighted the differences between supervision and evaluation, but also the intersection between the two roles. The Mette et al. (2017) study examined how high-performing principals in elementary schools served as instructional coaches, along with their duties as managers of teachers. While there are inherent differences between supervision and evaluation, the acknowledgement of the similarities can allow principals to better understand the role of an instructional coach so that higher functioning schools can be created (Mette et al., 2017). When principals perceive their purpose as a leader who can help teachers improve, and they reject the notion that their job is to get rid of underperforming teachers, then the real work of supportive change begins. The principals in the Mette et al. (2017) study fostered trusting relationships with teachers, and because of this trust, a supervision cycle focused on feedback that targeted specific instructional improvement efforts was successful.

Impact of Feedback on Student Achievement

Because of the infatuation with high stakes testing, principals have become the nexus of accountability, and they are expected to function as instructional leaders. Consequently, teachers' evaluations have been a dominant part of the discussion in recent years. However, there is an absence of feedback that teachers can use to facilitate professional growth geared towards instructional improvement (Anast-May et al., 2011; Balyer & Ozcan, 2020). A large body of research exists that indicates a critical link between students' academic achievement and effective teaching (Hallinger, 2005;

Kessinger, 2011; Robertson, 2008; Robinson, 2018). Principal academies were developed

as a result of the need for instructional improvement and increased student learning, the

goal being to change the practice of school leaders (Hallinger, 2005). When teachers do

not receive ongoing and objective feedback, they are less likely to attain professional

goals. In order to provide quality and focused feedback, a structure should be in place to

promote reflective inquiry (Feeney, 2007). Reflective inquiry in turn increases the

likelihood of teachers to internalize feedback to the point of making real improvements

(Feeney, 2007).

A study by Anast-May et al. (2011) used qualitative data to examine the

perspectives of teachers who voluntarily participated in classroom observations along

with face-to-face conference feedback. The focus was on encouraging administrators and

teachers to deliberately reflect on what was working and what needed improvement. In

addition, a goal of the study was to provide insight into teachers' perceptions of their

experiences with observations, feedback, and conferencing. The resulting themes include:

(1) observations should be frequent and extended beyond a precursory observation. These

should be completed prior to summative evaluations. (2) Formative feedback should

occur during the year to ensure that teachers have multiple opportunities to improve their

performance. (3) A structure should be in place so that every observation requires

teachers and administrators to foster reflective inquiry that facilitates teacher learning.

Anast-May et al. (2011) concluded that their results reinforce the idea that teachers are

not often observed and are not given systematic feedback and a structure that enables

them to become more proficient.

Flushman et al. (2019) completed a study whose goal was to better gauge how university supervisors can be prepared to meet the need of providing quality feedback to pre-service teachers and identified and examined what influenced the feedback process. The research from Flushman et al. (2019) is applicable to school principals because the impact of feedback from supervisor to teacher is examined. Flushman et al. (2019) found that high quality feedback has the potential to enhance the relationship between the university and schools, which in turn will increase pre-service teacher learning and will impact student learning. Written feedback assures permanent records of teachers' performance for accountability purposes and provides detailed and specific commentary. Evaluation of teacher practice is crucial and needs to be "grounded in evidence-based, constructive feedback" (Flushman et al., 2019, p. 49).

Further findings from Flushman et al. (2019) revealed that the confidence level of supervisors on their content knowledge often caused them to over-emphasize or de-emphasize certain skills. Interview data confirmed this by revealing that this often occurs because of evolving or unfamiliar pedagogical practices that have become prevalent in recent years. The findings also reported that the supervisors in the study provided significantly more praise than recommendations for improvements in their feedback. Flushman et al. (2019) demonstrated the importance of the professional development in the area of written feedback for university supervisors. Supervisors in the study welcomed the opportunity to critically investigate their data and determine next steps for their practice. This research is particularly pertinent because it emphasizes the need for school administrators, along with university supervisors, to have a deeper understanding of instructional and content knowledge so that they can provide meaningful feedback that

will promote effective teaching and learning. Because quality and evidence-based feedback from supervisors can improve teachers' learning, this feedback is critical to improving teachers' instructional practices (Flushman et al., 2019). In the changing role of school principals from managers to instructional leaders, this is an important shift.

Houtchens et al. (2012) stated that instructional leadership is key to students' academic success, but pre-service school administrator training has underemphasized instructional leadership. Houtchens et al. (2012) define instructional leadership as the "various strategies principals pursue to support and encourage high-quality teaching practices, which in turn have a direct impact on student outcomes" (pg. 137). In addition, practicing principals have limited opportunities to participate in structured and effective professional development. Houtchens et al. (2012) applied Argyris and Schon's (1974) definition of "double-loop learning" to facilitate professionals' deeper and cognitively complex form of problem solving rather than the typical, compulsory method of trial and error of "single-loop learning". Houtchens et al. (2012) were all former school principals and also served as coaches for the study. Results of the study indicate that the participating principals appreciated the structure, feedback, and reflective dimensions of the coaching protocol. The protocol helped the principals discover a level of confidence about ongoing instructional and leadership problems and learn how to assist teachers to improve their practice. All of the principals reported feeling that their instructional leadership had been enhanced and reported positive perceptions about the coaching protocol. However, while the theories of practice were useful in the process, these principals, who had been identified as having proven track records of success, rarely engaged in deep self-reflection and double-loop learning. Houtchens et al.'s (2012)

implications suggest that further research is needed on how to push school principals' thinking and application of their theories of practice. School district leaders, instructional supervisors, professional development coordinators, and school administrators should consider using a theory of practice as an essential piece of a coaching protocol.

Peeters and Robinson (2015) recommended an alternative explanation to changing educators' attitudes, beliefs, and actions, by proposing that the repeated failure of many educational programs can be attributed to the facilitators' failure to double-loop learn. They defined single and double-loop learning in the context of self-study and learning to correct mistakes, noting that mistakes can be corrected when individuals change the actions that produced the error. This is single-loop learning, and this type of learning questions the success of our actions but does not question why the individual made the mistake in the first place (Peeters & Robinson, 2015). Mistakes can also be corrected by modifying one's beliefs and assumptions that produced the actions; this is double-loop learning (Peeters & Robinson, 2015). Double-loop learning is particularly important for educators because in many cases across many contexts, they repeatedly fail when attempting to achieve desired outcomes.

The feedback conversation is a critical stage in the teacher evaluation cycle, and "feedback conversations have the potential to influence teaching practice by evaluating a teacher's instructional practices at multiple points each year" (Mihaly et al., 2018). However, there is little research evidence on how school leaders might communicate feedback that actually leads to instructional improvement and increased learning outcomes for students. Improving teachers' instruction in an ongoing and effective manner is difficult because every teacher is an individual with different strengths and

weaknesses. In addition to the differences among teachers, each individual student has different and unique needs. Teachers address these needs in a variety of ways, some of which are effective, but many of these practices and strategies are ineffective and cause students to not progress as far as they are capable. DeWitt writes, "We no longer should work as silos in education because our issues are too large to do alone, and we learn a great deal by working with others" (DeWitt, 2018, p. 3). DeWitt found that Hattie's Visible Learning research had a significant impact on educators and students around the world. Educators and leaders now have the opportunity to have meaningful conversations about teaching practices in the classroom and school. As a result, this research inspired many to consider specific practices and determine whether they truly have a deep impact on learning (DeWitt, 2018).

The Impact Cycle

A simple instruction coaching cycle, entitled The Impact Cycle, comprised of three simple elements, Identify, Learn, and Improve, was developed by the Kansas Coaching Project (Knight, 2019). The cycle begins by having the instructional coach collaborate with teachers to assess current reality in the teacher's classroom. The teacher and instructional coach set goals, and the coach identifies and explains teaching strategies so that the teacher can achieve the goals, while providing support until the goals are met (Knight, 2019). The Impact Cycle is an example of a researched and evidence-based framework that is essential to improving instruction and increasing student learning and achievement. Figure 2.1 is a graphic that illustrates the Impact Cycle.

Figure 1

The Impact Cycle (Knight, 2018)
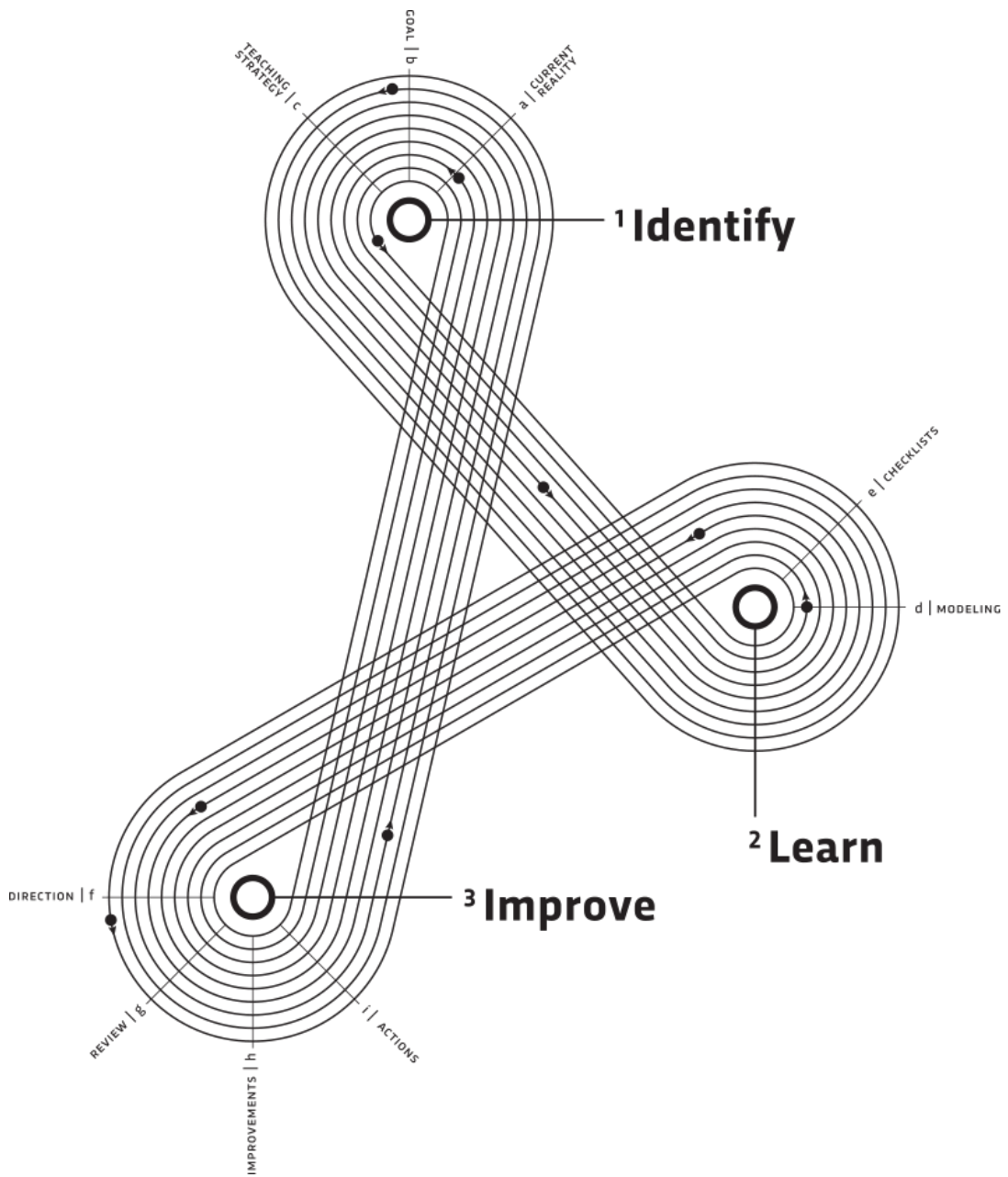
The Impact Cycle is successful because it is not a simplistic one-size-fits-all formula. Instead, the coaches who use this model "respond to the context in which coaching occurs, shaping what they do based on students' needs, teachers' insights, and other important factors. As such, the approach has been described as "informed-adaptive" (Knight, 2019, p. 7). Of utmost importance in any coaching scenario is that the coach holds a deep understanding of the situation where coaching occurs. An instructional coach must understand each teacher's strengths and weaknesses and students' varied characteristics. Coaches must be emotionally intelligent and have the ability to build relationships that are likely to lead to learning. Finally, an effective coach must have a deep knowledge of instructional practices that will lead each teacher to meet every student's needs.

As a coaching framework, the Impact Cycle (Knight, 2018) allows the coach to respond to unique situations and is flexible. "Each coaching conversation is individualized to a given context…. So, while instructional coaching involves a structure, in action it is an individualized process, uniquely co-constructed by each coach and teacher" (Knight, 2019, p. 7). A flexible framework is paramount in honoring every teacher's unique needs, so this coaching cycle will be an excellent model to enrich coaching conversations between the principal and teachers. When the construct of Visible Learning is implemented in a deep and effective manner, the Impact Cycle can serve as an essential component of the professional development model (Knight, 2019).

Additionally, a partnership approach is a fundamental tenet of this coaching model. In this approach, the instructional coaches see themselves as equals with teachers and recognize that each teacher brings expertise to the coaching dialogue. It is important

that instructional coaches take the partnership approach because the goal is for teachers to use their professional discretion to determine the best practices for their students and have the expertise needed to move forward with a more thorough understanding of what best practices will entail in future practice (Knight, 2019).

The first step in the Impact Cycle coaching model (Knight, 2018) is to identify a clear picture of current reality. In many cases, teachers do not have an accurate picture of what it looks like when they teach because of perceptual errors. Therefore, prior to setting goals, teachers need to gain a clear picture of current reality in their individual classrooms. This first step will be accomplished by video recording a lesson or by reviewing observation data. The teachers and researcher will look for factors that are identified by the Visible Learning research and will choose at least one factor to improve upon. Then teachers will identify a student-focused goal and a teaching strategy that they will use to reach the goal. Next, as needed, the instructional coach will partner with the teachers to find strategies that will assist in modifying the teachers' practices. If needed, the instructional coach will provide modeling for the teachers. Each teacher will set a time frame in which they will implement the new strategy. The final step of the coaching cycle is the improvement component where the teachers implement the new strategies and collect data on students' progress in relation to the goal. The teacher and researcher will gather data from video or observation data regarding the teachers' implementation of the new strategies and will meet to monitor progress. The teachers will make adaptations until the teachers meet their goals.

Impact of Visible Learning

"Every student deserves a great teacher, not by chance, but by design (Fisher et al. 2016, p. 2). The authors contend that every student, no matter their race, religion, location, socioeconomic status, etc., deserves a teacher who develops strong relationships, is knowledgeable about their content area and knows how to teach this content area. Additionally, all students' teachers should hold deep pedagogical knowledge to ensure that the teacher knows not only what to teach, but how to teach students. Fisher et al. (2016) write that the design of which they are speaking has great potential to positively impact students' learning and empowers teachers to become great teachers. This design is Hattie's *Visible Learning* (2009).

Visible Learning, is defined as "developing an understanding of the impact that instructional efforts have on students' learning" (Fisher et al., 2016, p. 2). To accomplish visible learning, students must understand "what they are learning, why they are learning it, what it means to be 'good' at this learning, and what it means to have learned" (Fisher et al., 2016, p. 2-3). Adults, too, need to know what student learning encompasses. Fisher et al. (2016) promote that teachers, in particular, need to hold an understanding of surface, deep, and transfer learning so that students have many and varied opportunities to show their teachers that they have grasped and are able to apply their new knowledge.

Visible Learning (Hattie, 2009) and *Visible Learning for Teachers* (Hattie, 2012) shaped the work of Fisher and Frey (Fisher et al., 2016). *Visible Learning for Literacy* (Fisher et al., 2016), christened the "Holy Grail" by the New York Times, was based on over 1,200 meta-analyses that had been conducted by researchers around the world; this body of research included over 70,000 individual studies and 300 million students and

represents the largest body of educational research ever collected. Hattie established the significance of thousands of effect sizes so that educators could delineate the differences among the influences in a meaningful way and have the ability to use evidence to deeply understand and defend models for teaching and learning (Donohoo et al., 2018). His overall goal was to "generate a model of successful teaching and learning based on the many thousands of studies" (Donohoo et al., 2018, p. 237).

Visible learning asks teachers to design conditions that are necessary for students to develop into being their own teachers (Fisher et al., 2016). It promotes the expectation that students are provided with instruction that involves student engagement that encourages students to want to learn more, even outside the classroom walls. If this is to occur, then teachers must become learners of their planning, instruction, and assessment. Fisher and Frey (2018) discussed how the Visible Learning philosophy requires teachers to have ongoing dialogue regarding the impact they expect to have on student learning. Visible Learning research examines strategies that accelerate learning, such as response to intervention (ES = 1.29) and developing collective teacher efficacy (ES = 1.57) (Fisher & Frey, 2018).

Hattie's research shares the effect sizes of more than 250 teacher influences and strategies. He found that approximately 95% of the influences used in schools have a positive effect (Fisher et al., 2016). However, the authors argue that when educators set the bar at zero, it is difficult to find programs and practices that do not increase students' learning. Hattie (2009) rejects the idea that educators should accept a starting point of zero. Because all students naturally mature and learn over the course of a school year, no matter what happens in school, educators should utilize actions, activities, and

interventions that extend learning beyond what students would normally learn in one

school year. Thus, Hattie set the bar of acceptability at 0.40 and called it the "hinge

point" (2009). He then examined the underlying attributes that explained why the teacher

influences higher than 0.40 had a positive effect versus those influences lower than the

hinge point. This was the commencement of *Visible Learning*. Table 2.2 illustrates

Hattie's (2009 barometer of influence and is a representation of the importance of the

hinge point in determining which strategies teachers should utilize.

Figure 2

Hattie's Barometer of Influence (2009)

Source: Hattie, J. (2009). Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement. New York, NY: Routledge.
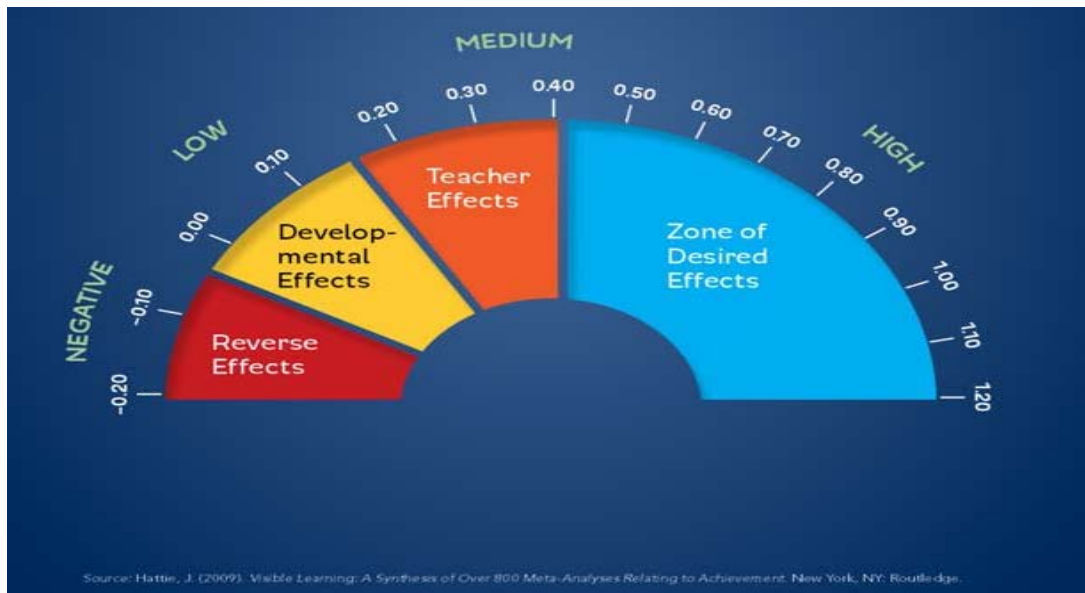
Jim Knight (2019) postulates how the use of a widely implemented construct, Visible Learning, may be implemented through the use of instructional coaches. Knight purports that schools utilize instructional coaches to serve as facilitators of professional learning as a construct designed to enable teachers to become more effective practitioners. However, many schools do not have instructional coaches, so school administrators must have the ability to serve as the instructional leader of the school. Aspects of the instructional coaching model can be utilized in collaborating with teachers to improve instruction and teacher efficacy.

Donohoo et al. (2018) emphasized the need to not only improve the supply of research but to also identify key features of research and conditions that might help teachers utilize research in more meaningful and impactful ways. Donohoo et al. (2018) postulated that a learning methodology is missing and is greatly needed so that teachers can attain deep levels of implementation which will then enable them to examine evidence to inform them on whether their instruction has been successful. Teachers' expertise varies widely and the achievement of students in each classroom also varies. Individual teachers must engage in deep analysis and firstly, be able to identify the root of the problem. Then they must have access to quality professional learning experiences that are tailored to their specific needs. Finally, each teacher must try new strategies and be willing to determine the strengths and weaknesses of the strategy. Donohoo et al. (2018) says, "what is needed is attention to the process through which evidence-based strategies get realized in practice (pg. 2). The Visible Learning construct can serve as a learning methodology and a scaffold to provide professional development that empowers teachers to learn new strategies that will impact student learning (Fisher et al., 2016).

DeWitt (2018) found a gap in what school leaders took from their understanding

of the Visible Learning research and how they were supposed to implement their

learning. Hattie's research completed 420 studies on school leadership, and the overall

effect size was 0.33 and is below the hinge point of 0.40. While it is accepted that

leadership plays an important role in student engagement, many school leaders are

distracted by the multitude of duties that must be accomplished each day, and this makes

it difficult for leaders to decide where to begin.

DeWitt (2018) discusses the need for ongoing collaboration between school

administrators and teachers so that all can learn how to provide the most effective

instruction that will impact student learning and achievement. Six areas that leaders,

teachers, and students should work on in order to create collaborative environments were

found: instructional leadership, collective efficacy, professional learning and

development, assessment capable learners, and family engagement (DeWitt, 2018). The

article promotes collaboration because the issues that educators must fix are too large for

individuals to do alone.

Impact of Collective Teacher Efficacy on Student Achievement

John Hattie published *Visible Learning: A Synthesis of Over 800 Meta-analyses

Relating to Achievement* in 2009. This book shared Hattie's research findings on the

factors with the greatest impact on student achievement. In 2016, he ranked collective

teacher efficacy as the most important factor in increasing student achievement (Hattie,

2016) based on Eells' meta-analysis (Eells, 2011). Eells reported that collective teacher

efficacy held an effect size of 1.57 (Eells, 2011); this finding supports other research that

purports the important role that collective teacher efficacy plays in student learning and achievement.

The positive effects of teacher collaboration are well researched and documented. Goddard et al. (2015) discussed the importance of principals' instructional leadership and pointed out that leadership and collaboration among teachers may contribute to the effectiveness of schools by strengthening collective efficacy. They found that school leaders could have a significant direct effect on teacher collaboration. This leadership and collaboration predicted the collective efficacy beliefs among a school faculty. Finally, their findings predicted achievement differences according to the level of collective efficacy beliefs. This finding is significant because it suggests that strong instructional leadership is essential to the facilitation of strengthening organizational belief systems which in turn foster student learning. This research suggests that leadership and teacher collaboration, in harmony with one another, may contribute to instructional effectiveness as a result of the strengthening of collective efficacy beliefs.

Goddard et al. (2015) "found a significant direct effect of leadership on teacher collaboration". Additionally, this study established that achievement differences in various schools were directly predicted by collective efficacy beliefs and that instructional leadership and teacher collaboration indirectly predicted achievement differences. The findings from this study suggest that a strong instructional leader within a school can be a catalyst to facilitate teacher collaboration with the goal of strengthening belief systems that result in increased student learning. When principals serve as instructional leaders and have detailed knowledge about classroom practice, then teachers are more likely to engage in dialogue designed to reach goals and improve student

learning and achievement (Goddard et al., 2015). The results also confirmed that the

instructional leadership of principals positively predicts collective efficacy beliefs

through principals' influence on teachers' collaborative work. Furthermore, Goddard et

al. (2015) found that when the sense of collective efficacy among the teachers was more

robust, and even after prior levels of student achievement, school and student background

characteristics were considered, the greater were the levels of student achievement. This

research demonstrates the significance of the partnership between the school leader and

the teachers in the school.

The conclusions by Donohoo et al. (2018) note that the condition that was key to

implementing evidence-based practices and the actualization of collective impact was

engagement on the part of the teachers in their professional learning methodology. As a

result of participation in Impact Cycles, the educators in both examples investigated best

practices related to an identified need, set goals, applied new approaches, reflected on the

evidence and impact, and adjusted their strategies accordingly (Donohoo et al., 2018;

Knight, 2018). In both cases, it was essential to assist the teachers in making the

connection between their collective actions and the student outcomes that resulted.

Teachers began to view themselves as agents of influence.

A study by Yu et al. (2014) examined the impact that work stress has on job

burnout and was mainly focused on confirmation of the role of mediator in the concept of

self-efficacy. The authors defined job burnout as a "state in which individuals experience

physical and mental fatigue after working under heavy pressure" (p. 702). Job burnout

was considered a manifestation of emotional fatigue that was often observed among

people who worked in helping professions such as teaching and nursing. Many studies

confirm that teachers are among those professionals who experience a great amount of pressure in their work. These psychological pressures sometimes result in high employee turnover, absenteeism, and dissatisfaction. The authors of the study shared research that employed self-efficacy theory and its relationship to job burnout. In recent years, self-efficacy theory has been increasingly employed to study job burnout in addition to explore the role that self-efficacy plays in the evolution of job burnout. Leiter (1993) described burnout as "a crisis of self-efficacy". Teachers with low self-efficacy have been reported to have higher levels of burnout in comparison to teachers who have high self-efficacy. Friedman and Farber (1992) found that teachers who could not maintain good classroom management strategies had higher levels of burnout. Good classroom management strategies had higher levels of burnout. Preventing burnout is an important aspect of building and maintaining teachers' sense of efficacy. This research is especially pertinent to the current study because of the difficulties that teachers have faced as a result of COVID-19.

Conclusion

This review of literature highlighted the importance of utilizing video analysis to improve teaching and learning. Sufficient research shows how the use of video can assist educators in becoming more effective; however, there is little research in the area of how school principals and teachers might use video analysis as an avenue to improve instruction and students' learning and achievement. Therefore, additional research in this area is needed to assist educators in determining how to effectively address student achievement gaps and positively impact student learning. Additionally, as a result of improved communication and feedback between the researcher and teachers, collective

teacher efficacy will be increased. The educational construct, Visible Learning, will serve as a tool to facilitate dialogue about the most effective approaches and strategies for classroom teachers.

This study seeks to examine how the use of video analysis can assist teachers and school principals in achieving collective teacher efficacy and instructional improvement and if a level of difference is attained between those teachers who receive the video analysis treatment. The purpose is also to determine how the instructional feedback cycle can impact collective teacher efficacy and instructional improvement. The focus will be on empowering individual teachers to have teacher agency in determining their own professional learning and development goals and on improving teacher self-efficacy and collective teacher efficacy.

CHAPTER III

METHODOLOGY

The purpose of this study was to explore how the use of video analysis and engagement in the instructional feedback cycle can influence teachers' efficacy beliefs and instructional decision making. This chapter will begin with a description of the research design, followed by a description of the participants included in the study, methods utilized for the data collection, procedures, and finally an outline of the procedures followed by the participants. The following research questions guided the collection and analysis of data for the present study:

1. In what ways did the use of video analysis influence teachers' instruction?

2. In what ways did the use of video analysis influence teachers' self-efficacy?

3. In what ways did the use video analysis influence teachers' collective efficacy?

4. How did participating teachers' perceptions of video analysis and instructional feedback cycle differ from the beginning of the treatment to the end?

Research Design

The current study employed a phenomenological approach to analyze the qualitative data. According to Creswell (2009), phenomenological research is a

"qualitative strategy in which the researcher identifies the essence of human experiences about a phenomenon as described by participants" (p. 245). In the field of education, it is important to understand and appreciate both perspectives: teachers who work in the field and educational researchers. Learning from the experiences of others is a foundational premise of research. To maximize the effectiveness of video analysis and the instructional feedback cycle, a phenomenological lens was applied so that the researcher could carefully explore and learn from the participants. The researcher analyzed the participating teachers' experiences regarding video analysis and instructional feedback to explore teachers' efficacy beliefs. This study seeks to deeply understand the phenomenon of lived experiences and reality of teachers as they participate in video analysis and instructional feedback related to the teachers' self-efficacy, collective teacher efficacy, and instructional decision making.

Qualitative data was collected through feedback sessions and focus group interview sessions. Video-based observations of the participants were recorded to collect fine-grained data and evidence of various instructional techniques and strategies. The participants and researcher met three times during the course of the research to discuss how each teacher could become more effective by utilizing the Impact Cycle (Knight, 2018). An instructional feedback cycle between each teacher and the researcher occurred to serve as a tool to enhance video analysis. The recorded feedback sessions were conducted three times for each teacher and served as the first source of qualitative data. The feedback sessions were held approximately every three weeks, and each session lasted about 30 minutes. It took almost three months to complete the feedback cycle.

Two focus group interview sessions were conducted near the end of the study and served as a second source of qualitative data. All eleven participants participated in one of the two focus group interview sessions, which were held two weeks apart. The focus group interview questions (see Appendix H) asked the participants how video analysis and engaging in the instructional feedback cycle influenced their self-efficacy and collective efficacy beliefs, how participating in video analysis and instructional feedback shed new light on instructional decision-making allowed for enhanced instructional effectiveness, as well as participants' thoughts about video analysis at the beginning and end of the study. Various follow-up questions were asked to clarify the participants' responses or gain a deeper understanding of the participants' experiences and perspectives. The focus group interview sessions lasted about 30 minutes each.

The researcher is the school principal. Because the researcher has been at this school for five years, the researcher's relationships with the participants allowed for a natural feedback cycle to occur. The researcher's relationships with the participants were positive at the time of the study and characterized by mutual trust and respect. The researcher has focused on building positive working relationships and gaining trust with all teachers and staff so that improvement can occur in a variety of areas. As a practicing principal, the researcher understands the unique contexts of the individual participants, as well as the goals and expectations that the participants have for their classroom instruction. A deep understanding of each teacher as an individual is needed for effective feedback and growth to occur. The researcher's role as principal might present a challenge for sincere and authentic reflection from the participants who might be apprehensive to share some information with their administrator. However, this is not

believed to be the case due to positive and ongoing opportunities for feedback and dialogue to occur over several years. During the research, the interactions seemed to flow freely and authentically so it seems that this challenge was mitigated. Observation and feedback sessions regularly occur at the school where the study was conducted.

This study utilized the Visible Learning educational construct (Hattie, 2009; Fisher et al., 2016) as a framework to enhance observational feedback to teachers and thereby increase student learning and achievement. The Impact Cycle (Knight, 2018) was developed by the Kansas Coaching Project to assist in providing feedback to teachers and supporting their efforts to improve instruction. By utilizing the Impact Cycle and Visible Learning, the researcher and teachers had a means by which to have meaningful conversations about teaching practices. The Impact Cycle Checklist (See Appendix B) was utilized during the feedback sessions to guide the teacher through the improvement process. This checklist assisted the teacher and researcher in making the best decisions about which goals were most appropriate to use for each individual teacher and his/her students. Consequently, the researcher and participants were able to determine whether particular teaching strategies impacted the quality of instruction.

The feedback cycle between the teachers and researcher followed the steps of the Impact Cycle (Knight, 2018): Identify, Learn, Improve. An example of these steps is provided:

1. The teacher and researcher collaborated to identify weaknesses in the teacher's instruction after the first observation and during the first feedback session. They worked together to assess current reality and gained an accurate picture of how to improve instruction effectively and efficiently. The teacher set a goal and selected

a strategy, with the instructional coach's assistance, if needed, to meet that goal. Knight (2014a) stated that goal setting is an essential component of instructional coaching because time will be wasted if the teacher and coach do not choose a goal that can make a difference for students.

2. If a teacher asked for assistance, the instructional coach assisted the teacher in learning more about a strategy that could help the teacher to meet his/her goal. When appropriate, the coach modeled lessons for the teacher. Along the way, additional learning occurred such as sharing and discussing classroom videos, visiting another teacher's classroom, participating in professional development, reading books or articles, etc.

3. During the improvement stage, the teacher reviewed their progress and asked for assistance to confirm direction and invent improvements if needed. This cycle was repeated two more times.

Participants

The study took place in a rural elementary school located in the southeastern United States. The racial backgrounds of the students in this school were 76 percent Caucasian, 18 percent African American, five percent Hispanic, and less than one percent were Asian and/or Native American. Fifty-five percent of students received free/reduced lunch. All of the participants in the study were Caucasian.

The participants of the study represented a convenience sample of eleven teachers at one elementary school. All 38 teachers at the school were emailed with information

about the research and were asked to volunteer to participate on a first-come, first-served basis. The goal was for 20 teachers to participate, but only eleven committed to be a part of the study. Because of the time involved with videoing, viewing the videos, giving meaningful feedback, etc., the study was limited to a small group of teachers. Four kindergarten teachers, three first grade teachers, one special education teacher, one Program for Academic and Creative Enrichment (PACE) teacher, one school counselor, and one instructional coach participated in the study. All participated on a voluntary basis. The experience level of the teachers was varied. Four of the participants had five or less years of teaching experience; three had between five and ten years of experience; two had been teaching between 10 and 15 years; two had 15 or more years of experience. All participants were female. Six of the participants have earned master's degrees; five of the participants hold bachelor's degrees. Table 3.1 provides data on each participant, her role in the school, the number of years of teaching experience, the dates of the feedback sessions with the researcher, and the date of the focus group session that each teacher attended.

Table 1

Participants' Role, Years of Teaching Experience, Dates of Feedback Sessions and

Focus Group Sessions

Teacher	Role	# of Years Teaching Experience	Date of Feedback Session #1	Date of Feedback Session #2	Date of Feedback Session #3	Date of Focus Group Session
1	Teacher	11	4/16/21	5/5/21	5/20/21	5/24/21
2	Counselor	10	3/21/21	5/8/21	5/18/21	5/10/21
3	Teacher	5	4/14/21	5/12/21	5/20/21	5/10/21
4	Teacher	15	4/20/21	5/13/21	5/25/21	5/24/21
5	Teacher	2	4/1/21	4/22/21	5/18/21	5/10/21
6	Teacher	22	4/19/21	5/5/21	5/25/21	5/24/21
7	Teacher	5	3/29/21	4/29/21	5/20/21	5/24/21
8	Teacher	1	4/16/21	5/11/21	5/21/21	5/10/21
9	Instructional Coach	21	4/2/21	5/12/21	5/21/21	5/24/21
10	Teacher	7	4/8/21	4/30/21	5/14/21	5/24/21
11	Teacher	2	3/28/21	5/7/21	5/25/21	5/10/21

Qualitative Data Collection

The instructional feedback sessions and focus group interview data (see Appendix H for questions) was automatically transcribed through Microsoft Stream technology. The transcribed data was then analyzed through coding (Creswell, 2009; Saldana, 2013). Creswell (2009) defines coding as the process of identifying and organizing qualitative data to classify various themes and relationships between themes. The open codes used in the current study were instructional decisions, teacher self-efficacy, and collective teacher efficacy. The researcher identified and marked narrative data that related to these pre-established codes that aligned to the research questions. The researcher gathered detailed notes, including direct quotes from the participants, from these transcriptions, and organized the responses according to the open codes. The data was then used to develop an understanding of the participating teachers' instructional decision-making and efficacy beliefs using open coding. Saldana (2013) defines coding as a word or phrase that is assigned to a summative or salient capturing of the essence of visual or language-based data. Saldana (2013) describes open coding as suitable for understanding meaning from data that can capture rich nuances.

Procedures

Once the teachers volunteered for the study, the researcher held a meeting with all participants to provide an overview of the research design and procedures. The procedures were as follows:

The Visible Learning Implementation Checklist Self-Assessment Activity (See Appendix A) was administered to all eleven teachers at the beginning and at the conclusion of the study. This checklist is licensed under Creative Commons and does not

need permission for use. Teachers were asked to rate themselves (Yes, Partially, or No) on six characteristics of Visible Learning implementation and to provide evidence of their Visible Learning implementation.

The Impact Cycle (Knight, 2018) process was utilized, along with several tools for observations from Knight's *Focus on Teaching* (2014a). The tools for observations were suggested, not mandated, for use. Five forms from Knight's *Focus on Teaching* (2014a) were suggested to be utilized by the teachers during the research study. The forms were: Watch Yourself, Question Chart, Teacher vs. Student Talk, and After-Action Report. Permission for the use of these forms in this study was granted by the author. The forms were given to all participants as a resource to determine which aspects of their instruction they needed to improve upon. The Watch Yourself form (See Appendix D), which has a seven-point scale, was used by five teachers to rate how closely instruction aligned to their ideal in seven areas. Teachers could also utilize the Question Chart (See Appendix E) to identify the type, kind, and level of questions they ask students during the video-recorded lessons. No teachers utilized the Question Chart. The Teacher vs. Student Talk form (See Appendix F), used by four teachers, was used as a time management tool to ascertain how many minutes the teacher talked versus how many minutes the students talked. Teachers provided responses on the After-Action Report (Appendix J); the purpose of this form was to assist them with reflection and analysis of their lessons. Additional qualitative data was gleaned from the use of the Impact Cycle Checklist. This checklist was used during the face-to-face feedback sessions between each teacher and the school researcher.

The researcher observed and video recorded a lesson (15 - 30 min) in each participating teacher's classroom. The researcher and participating teachers viewed and analyzed the lesson video separately within 5 days of the observation. Numerous aspects of instruction were addressed using these forms and checklists which provided the teachers and researcher with feedback on teachers' questioning techniques, use of various learning structures, amount of student versus teacher talk, monitoring of student learning, and implementation of instructional practices. Due to unforeseen time constraints and navigation of a global pandemic (quarantine and exposures due to COVID-19), the participants videoed their own classroom instruction for their second and third videos.

Face-to-face feedback, which was also video recorded to accurately capture each teacher's commentary on her own instruction, between the researcher and participant occurred next. The teacher and researcher collaborated during the feedback session and utilized the Impact Cycle Checklist to decide upon an instructional goal for the teacher to accomplish. The teacher's strengths and weaknesses were discussed, along with how the researcher could best support the teacher's development. The researcher began each feedback session by asking: What did you think went well? and What are some things you would like to improve upon? The researcher also asked each teacher what they needed regarding support from her before they videoed their next lesson. Based upon each participant's responses, the dialogue progressed differently during each feedback session. The teachers implemented the changes and worked to achieve the goals discussed in the feedback session. The video feedback cycle occurred twice more with each participant.

Near the conclusion of the study, participants took the Visible Learning Implementation Fidelity Checklists as anonymous post-tests. Two focus group interview sessions with all eleven teachers were held on two different Monday afternoons after school, and each lasted about 30 minutes. The focus group interview sessions were optional for the participants, but 100% of them volunteered to participate in these sessions. The participants were cooperative, and the researcher made every effort to ensure that the atmosphere was welcoming and non-invasive. All participants seemed to feel comfortable; this was evidenced in the video by the participants laughing and talking together, and 100% of the participants contributed to the discussion. These sessions were extremely helpful to the researcher because they enabled her to hear how the research process had influenced teachers' sense of self-efficacy, collective teacher efficacy, and their instructional decisions. All of participants responded that the use of video analysis increased both self-efficacy and collective teacher efficacy and influenced their instructional decision-making. During the focus group interview sessions, all of the participants indicated that they would utilize video analysis as a way to improve their teaching in the future. Throughout the discussion in the focus group sessions, all participants felt that the process of video analysis helped them to focus on various elements of their instruction and empowered them to see a problem, diagnose it, and correct the problem. Most of the problems were not major and could be improved easily with minor shifts in instructional practice.

CHAPTER IV: FINDINGS

In the current study qualitative data was gathered and analyzed to explore how video analysis and instructional feedback cycle can influence teacher self-efficacy, collective teacher efficacy, and instructional decision-making. The phenomenological analysis of dialogue transcribed from video-recorded observation feedback sessions and focus group interview sessions provides evidence of how video reflection and analysis positively influenced teachers' instructional decisions and efficacy beliefs. This chapter reports the findings of this study intended to answer the following research questions:

1. In what ways did the use of video analysis influence teachers' instruction?

2. In what ways did the use of video analysis influence teachers' self-efficacy?

3. In what ways did the use video analysis influence teachers' collective efficacy?

4. How did participating teachers' perceptions of video analysis and instructional feedback cycle differ from the beginning of the treatment to the end?

Research Findings

Transcripts from instructional feedback sessions and the two focus group interview sessions were analyzed and coded for teacher self-efficacy, collective teacher efficacy, and instructional decision-making. First, sixty-nine initial closed codes were

found and were then consolidated. For example, the initial codes for "increased confidence," "more comfortable," "feeling better," and "increased confidence" were all collapsed under the single code of "greater teacher self-efficacy". After open coding was accomplished, then closed coding was employed to identify participant data that was relevant to the target research questions that guided the study.

After analysis of both open and closed codes, three overarching themes were identified: 1) The use of video analysis positively influenced self-efficacy and collective teacher efficacy because it empowered teachers to see a problem of practice, diagnose the problem, and then prescribe an intervention or change in practice; 2) Teachers became more comfortable with video analysis from the beginning of the study to the end; 3) The element of time spent discussing teaching and learning positively influences instructional effectiveness. The results pertaining to each theme will be discussed in detail in the following subsections.

Teachers' Reflections on Instruction

The teachers decided which aspect of their instruction they wanted to video and work to improve upon. Knight's (2018) Impact Cycle (see Figure 2.1) was utilized with each participant who identified a problem of practice, made a concerted effort to learn more about how to correct the problem, and then improved her practice. The simplicity of the Impact Cycle provided the participants with a model that assisted them in making instructional decisions that positively influenced their instructional effectiveness. Five of the participants decided to video their reading foundational instruction; one of each videoed writing, math, and coaching; three participants videoed their instruction to focus

on improving the amount of time they allowed for students to discuss the content presented to them.

The video analysis treatment and instructional feedback cycle influenced teachers' instructional decisions in a variety of ways. Participants reported that the use of video analysis and reflection of this analysis assisted them in seeing things that they would not otherwise have seen. One participant noted that the use of video caused her to pay closer attention to her instruction. This is important as it is often difficult for teachers to pay close attention to instruction, but this attention to detail is critical to students' success. Participant 6 noted the ability to enhance their attention to detail because of the recorded lessons. She reported that as she facilitated instruction to assist students with surface learning, walked away to help other students while her video, which was focused on two students, revealed a deep level of students' understanding of the content. Without video analysis, this teacher would not have noticed this interaction between students. In her next lesson, she was able to further the students' thinking because she knew that those two students were ready for deep and transfer learning (Fisher et al., 2016). Because of video analysis, Participant 6 gained the ability to understand her students more deeply, which is "essential when promoting transfer of learning" (Fisher et al., 2016, p. 106). The work that teachers do is for naught if students are unable to appropriately transfer their learning; therefore, transfer should be the goal of learning (Fisher et al., 2016). As a result of video analysis, Participant 6 also identified a need to craft better questions that required deeper and more challenging thinking for her students. This, too, facilitated students' surface, deep, and transfer learning.

Key Impact of Video Analysis Treatment

A key impact of the video analysis treatment was that teachers were able to take notice of their students' responses to their questioning; in several cases, the teachers noticed that their questioning needed to improve. Participant 9 reported, "I thought I was more adept at asking good questions, but the video showed me I wasn't, so I had to think about that and adjust the next time." This participant thought that her questions were good and that she allowed enough response time, but after she watched her video, she found that this was not the case. During her next video and instructional feedback session, Participant 9 made sure that she had developed more effective questions so that she would receive better responses. Because of video analysis, she saw the reality of what occurred and corrected the problem quickly.

Through video analysis, Participant 7 became more mindful of her interactions with students and helped her to see things she could not see while teaching such as jumping in too soon to help students answer questions. This enabled her to be more effective in her instructional decision-making. Additionally, the participants noticed more in relation to students' responses; for example, which students truly understood the material and which students exhibited misunderstandings and/or were not engaged in the lessons for various reasons. After analyzing video, one teacher noticed that two students "carried the class" while several other students were not participating or paying attention. The teachers who utilized this new knowledge of students' understanding were able to provide targeted instruction that was intentionally aligned to actual and pertinent student responses. This made their future instruction even more effective. For example, in one of the kindergarten classrooms, the teacher taught a math fluency lesson and noticed in her

first video that two of her students were playing around and not following along with her instruction. She reported that she was completely unaware of this while teaching. During her second video, she intentionally seated the two students away from each other and noticed a marked difference in their attentiveness and ability to answer questions correctly. Thus, these teachers' instructional decisions, as a result of the video analysis, were changed. They noticed various problems and were able to correct the problems quickly and effectively.

Two of the participants were already skilled in teaching reading foundational skills and had already seen much success with their students' learning. There was little to improve upon because the lessons were exemplary. The two participants had videoed themselves providing instruction to their students with the camera view on the teacher. To extend student learning even further, the researcher suggested that these two teachers video their students instead of themselves to see if the teachers noticed any problems that their students might experience during instruction. Changing the camera view proved to be an excellent tool to give the teachers another glimpse into how each student responded to instruction. Both teachers made important conclusions about individual students' understanding and application of the content. In both cases, the teachers noticed which students fully comprehended the material and which students did not. This was a critical piece in the teachers' growth during the treatment and assisted them in discovering more about each student's progress. Additionally, by changing the camera's view to students, it enabled the teachers to notice which students were not paying attention and which students needed to be moved around because of minor misbehavior. These details would not have been discovered without the use of video analysis. During actual instruction,

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teachers' minds are occupied with asking quality questions, keeping a good pace, along with many other details of teaching. The addition of video analysis empowered these teachers to take another look at what their students were doing during each lesson.

Two of the participants who were focusing on improvement of their reading foundational instruction also demonstrated difficulty with timing. For example, both teachers spent too much time on individual components of the lessons. Prior to the study, the researcher and instructional coach expressed concern over this problem of practice on several occasions with both teachers, to little avail. However, once these teachers analyzed their videos as part of this research study, it was made clear to them that they did, in fact, spend too much time on each part of the lesson. By simply watching their own videos, the participants kept track of how much time they spent on each lesson element and discovered the actual time spent on each piece. Within a week or two, both teachers had made significant improvement to their timing. This would not have occurred without video analysis.

The use of video reflection and analysis helped the participants and the researcher to notice individual and group strengths and weaknesses, with both teachers and students. When there was a problem of practice, video reflection and analysis assisted the participants and the researcher in finding fine-grained evidence that either confirmed or denied their beliefs about what happened prior to analyzing the videos. This helped everyone to better understand how to proceed in deciding upon next steps for instruction.

As illustrated above, analysis of the data showed that participants felt successful after taking part in the video analysis treatment and were willing to utilize the process again in the future. The researcher believes that the steps of Knight's (2018) Impact

Cycle (see Appendix B) empowered the participants to identify a problem of practice, learn about ways that would remedy the problem, and finally, improve upon their teaching practice and become even more effective practitioners.

Teachers' Self-efficacy

The participants' responses from the feedback sessions and focus group interview sessions indicated that the treatment of video analysis influenced teachers' self-efficacy. All teachers reported that they felt more confident in their abilities as classroom practitioners as a result of the video analysis and instructional feedback cycle. While some of the participants were apprehensive about what they would see in their videos in the beginning of the study, all became more confident with the use of video analysis and in their feedback dialogue by the end of the research study.

Video analysis assisted the participants in gaining a more thorough understanding of how to best organize and execute a plan of action that would produce more effective instruction, and this positively influenced their sense of teacher self-efficacy. Participant 5 reported that because of video analysis and the instructional feedback cycle, she realized that she needed to ask better questions so that students' thinking kept moving forward throughout the lesson. Prior to implementing video analysis and participating in feedback with the researcher, this participant had allowed too much down time during class, but after analyzing her videos, she quickly realized what she could do to help move students' thinking forward in a more efficient manner. Being able to identify an instructional problem and formulate a solution empowered Participant 5 to feel more confident in her own ability to teach the students moving forward.

In a similar experience, Participant 6 focused on student work products as her problem of practice, and video analysis empowered her to "dig deeper into why students' work products were not up-to-par". As a result of her video analysis, she was able to identify specific areas such as "choppy sentences" and "a lack of punctuation and capital letters" and discussed that students had "great ideas for the tasks but they had trouble with the end product". Having the ability to construct meaningful and specific feedback for students based on video data helped the teacher to gain more confidence regarding her ability to engage students in meaningful dialogue about how to improve their writing. Through video analysis, Participant 9 identified a handful of problems right away and, without any additional support or resources, was able to quickly remedy the problem. In short, they were able to solve the instructional problem quickly, and their perceptions of self-efficacy benefited from the instructional success.

Instructional Supports and Teacher Self-Efficacy

The feedback sessions with the researcher also enabled the participants to hold focused and deep dialogue about what occurred during the lesson and to focus on goals that would improve their instructional decisions. The Impact Cycle Checklist (see Appendix B) was a helpful tool for the participants. Through video analysis, each teacher was able to gain a clear picture of reality in her classroom and was able to decide upon a course of action. During the feedback sessions with the researcher, the teacher decided on a learning goal. The researcher provided additional support and resources as needed. For example, two of the participants needed the instructional coach, who was also a participant, to model lessons prior to further implementing the plan of action. According to Bandura, (1971) "virtually all learning phenomena resulting from direct experiences

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can occur on a vicarious basis through observation of other people's behavior and its consequences for them" (p. 2). The model lessons provided by the instructional coach enabled these two participants to observe more effective instruction, and these vicarious experiences to see model instruction and replicate it quickly.

The researcher provided support by finding additional checklists, information, and future professional development opportunities based upon the conversations in the feedback sessions. The importance of effective lesson planning became clear to Participant 6 after she analyzed her videos. In a feedback session with the researcher, Participant 6 responded that the use of video analysis helped her to "really think through the steps of her instruction and to plan accordingly" for future lessons. Once Participant 6 realized that she was not closely following the lesson plans and was getting off course, she quickly corrected the problem and saw positive results through allowing her students more time to discuss the content presented during her instruction. Wood and Bandura (1989) stated that the "most effective way individuals develop a strong sense of efficacy is through mastery experiences. Performance successes strengthen self-beliefs of capability" (p. 364). Participant 6 experienced an obstacle, but through mastery experiences provided by the instructional leader as a result of the feedback sessions, she gained a resilient sense of efficacy and overcame her obstacle through perseverant effort.

Collective Teacher Efficacy

During the focus group interview sessions, the group of participants all reported that video analysis positively influenced their collective ability to organize and execute courses of action that would produce desired results to impact student learning (Bandura, 1989; Hattie, 2009). This was most likely due to the camaraderie that was developed by

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the group of teachers who participated in the study. Because this group of teachers had a common goal, they had additional opportunities to discuss problems of practice and how to effectively move forward to achieve their goals. They often discussed their videos with one another throughout the study, and these extended conversations about their practice created an ongoing sense of collective teacher efficacy and further developed the camaraderie among the participants (Goddard et al., 2015). The teachers' relationships with one another deepened because they had ongoing opportunities to discuss their instruction with each other.

Three of the participants serve as mentors in various capacities, and the use of video analysis furthered the opportunities for discussion and collaboration on execution of best practices. Participant 9 noted that fellow participants shared videos on reading foundational skills instruction and moreover, that the ease of use made video sharing relevant and timely. The time spent with one another helped each participant, even when participants had different types of students, for instance, special education students compared with gifted students. During the focus group interview session, Participant 6 reported that "The feedback between [general and special education teacher] was very helpful."

Participants actively collaborated by sharing their videos with one another and discussing strengths and weaknesses of their instructional approaches. One source of collective efficacy was the experience of several participating teachers identifying the same instructional weakness and going through the process of developing, implementing, and evaluating solutions together (Goddard et al., 2015). Five of the participants video-recorded their reading foundational skills instruction. Because of their common goal of

improving reading foundational skills, these teachers met not only with the researcher for instructional feedback sessions, they also talked with one another about reading foundational skills instruction during the course of the treatment. These additional conversations allowed all of them to deepen their understanding of the problem and how to fix it, and when the teachers experienced success, their collective teacher efficacy was positively influenced.

Key Finding of Amount of Time of Teachers' Instruction

A key finding was the amount of time that teachers talk during instruction instead of allowing students more talk time, and this, too, was an important element in positively influencing collective teacher efficacy. During a focus group interview session, Participant 10 said, "We all talk too much while teaching, so we learned that we all need to improve in that area. It's nice to know that it's not just me who struggles" with being verbose. Through the feedback process, the participants identified a common weakness. As a result, more conversations occurred throughout the school about ways in which the participants could collectively improve on the amount of student talk that occurred in each classroom. Collectively, the teachers believed that they could produce better results toward this problem of practice, and they were able to allow more opportunities for student talk in their classrooms.

In a final example of the instructional feedback cycle supporting the development of collective teacher efficacy can be seen during a feedback session with Participant 9. In this session, she revealed the need for the instructional coach and researcher to be more specific in their descriptions for next steps in reading foundational skills instruction. Because Participant 9 and the researcher had gained a deeper understanding of fine-

grained evidence of instruction through video analysis, they were able to effectively plan for future professional development and instruction that was better aligned to teachers' weaknesses. These types of interactions among the participants were evidence of collective teacher efficacy and illustrate that when a group of people share common goals, they can collectively produce positive results (Goddard et al., 2015; Hattie, 2012).

Participants' Perceptions of Video Analysis and Instructional Feedback Cycle

The data from closed coding analysis of the feedback sessions and focus group interviews showed that the video analysis treatment positively influenced teachers' perceptions of video analysis and the instructional feedback cycle over the course of the treatment. The simple act of taking time to watch oneself can positively influence one's future actions, thereby improving instructional effectiveness (Knight, 2014a). As a result, participants' perceptions on the use of video analysis were positive because they all experienced success in identifying something to improve upon, learning more, and improving. The feedback sessions were an additional measure that empowered the participants to reflect and analyze their instruction and to have an in-depth discussion about what occurred in the video. The researcher's feedback may have added another element of perception and perspective that extended each participant's understanding and decisions for next steps to their instruction.

An example of a participant's perceptions of the feedback cycle can be seen in Participant 1's report that the discussion between her and the researcher helped her in fine-tuning her instruction. The time spent discussing the finer points of instruction assisted Participant 1 in identifying a problem, learning more about how to address the problem, and then improving and fixing the problem. Following the steps of the Impact

Cycle (Knight, 2018) assisted the participants in following a simple feedback cycle that positively influenced the participant's perceptions of video analysis. In a second example, Participant 2 responded that the feedback from the researcher "was positive and encouraged both parties to continue to fine-tune teaching and learning". This response implies that the researcher's positive, encouraging, and non-judgmental feedback influenced the participants' perceptions of video analysis and the instructional feedback cycle. Participants 3, 7, and 9 reported similar experiences regarding video analysis, along with the feedback from the researcher, positively influencing their perceptions regarding video analysis and instructional feedback cycle.

Many strengths in teachers' instruction were noted during the feedback sessions. In the reading foundational skills lessons, the instruction was direct, systematic, explicit, and included multisensory aspects for student learning. For the most part, the teachers were closely following the prescribed instructional routines and were seeing a lot of student growth in their reading foundational skills knowledge and application. The math instruction was aligned to students' developmental needs, and math number talks were used efficiently.

Discussion from the Principal's Perspective

The researcher sometimes noticed things that the teachers had not noticed. For example, the amount of teacher vs. student talk had already been discussed on countless occasions over the last few years. When asked during a feedback session what the most important take-away from the video analysis process, Participant 1 responded that "Students were not talking or sharing enough". The researcher suggested that she turn the camera angle to show the students so that the participant could more effectively analyze

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the students' understanding of the content. During the participant's second video, she noticed that she still talked too much and because of this issue, her students' writing was not representative of their true abilities. Because this participant noticed this during her video analysis, she was able to correct the problem by the third observation.

When the researcher shared the Teacher vs. Student Talk form and encouraged the teachers to use the form while engaged in this research study, it was clear to the teachers who used this form that they did, indeed, spend too much time talking and did not allow students adequate time to discuss the material and make connections for transfer of learning. Once the teachers noticed this problem themselves, in their own classrooms, they were quick to correct the issue. The participants' perceptions about how much time they spent talking during instruction was a powerful finding.

Additionally, the researcher noticed many excellent elements of instruction that the teachers did not notice. Video analysis and the instructional feedback cycle highlighted many strong and effective instructional strategies that would not otherwise have been seen. The teachers demonstrated expertise in their content areas and were well-prepared to teach their students. They were open to feedback and applied the researcher's suggestions in the next video. The video analysis treatment highlighted the instructional effectiveness of many teachers. For the most part, instruction is made relevant and engaging for students, and the school's test scores are strong. The video analysis allowed both the teachers and researcher to discuss in depth what went well in each teacher's instruction, and these strengths were shared as best practices with colleagues. Teachers in this building teach all day every day, and very little time is wasted. However, because time is such a precious commodity in education, a goal for everyone is to ensure that

every minute of the day is used efficiently and effectively. Video analysis enabled each participant to notice which aspects of instruction worked well and which aspects needed adjustment. Because all participants experienced success in a short amount of time, their perceptions of video analysis and instructional feedback cycle were positive.

Responses from participants revealed that the element of time spent discussing teaching and learning positively influences instructional effectiveness. The commitment of time from the participants and the researcher was essential to the study, and this time commitment assisted all participants and the researcher in gaining a deeper understanding of the intricacies of teaching and learning. The teachers who were attempting to increase the time that students were allowed to discuss the content were successful in accomplishing their goal. The instructional coach was happy that she was able to make improvements in her coaching from her first video to the third video. In the focus group session, the instructional coach said, "From the first to the second video, I did improve so it helped me to feel successful. I wouldn't have been able to see what I had accomplished without video."

Several of the teachers used the various forms that were suggested by the researcher at the beginning of the study, and these resources show evidence that the participants' perceptions of video analysis and instructional feedback cycle were positive. The two most popular forms used during the study were Watch Yourself (Appendix D) and Teacher Vs. Student Talk (Appendix F). One teacher utilized the After-Action Report (Appendix G) for her video analysis. One participant who utilized the Watch Yourself form rated herself as improved from her first video to the third video. She rated herself as a "3" on "I used a variety of learning structures effectively" on the first video, and that

score increased to a "6" by her third video. Similarly, she rated herself as a "4" on "I clearly understand what my students know and don't know" during her first video, and by her third video, she increased her self-score to a "7". On three of the other questions, her self-scores increased by two points. This is considerable improvement in only a few weeks' time. During the feedback sessions, this participant and the researcher discussed student responses to her questioning, and this was the participant's primary goal to improve upon. Qualitative findings indicate that the success of this participant in improving on her problem of practice was a direct result of the video analysis and dialogue between the teacher and researcher.

Similar findings were identified with other participants during the instructional coach's sessions. Specifically, with a teacher, the coach, who was one of the participants, noticed that she talked too much and did not allow the teacher to respond at length to her questions. Additionally, the coach noticed that she asked leading questions. This line of questioning and the amount of time that the coach talked versus the teacher talking would most likely not have been noticed had video analysis not been utilized. As a result of the treatment, the coach was able to see the problem and quickly corrected it. She was happy to experience positive results in a short time.

Discussion

It is important to note that throughout this study, the researcher paid close attention to Bandura's (1989, 1993) definitions of self-efficacy and collective teacher efficacy; in particular, the words, "beliefs and confidence", were at the forefront of the researcher's mind. While instructional decision-making, instructional effectiveness, and efficacy are different ideas, for the purposes of this study, it is important to understand

the relationship between them because they are intertwined. When a teacher experiences success with instruction and see evidence that their students are learning, the teacher's sense of self-efficacy is positively influenced. Additionally, in Bandura's (1989, 1993) definitions, when teachers have beliefs and confidence in themselves to decide on a course of action that will produce positive results, their sense of efficacy increases. In this study, teachers had autonomy in deciding on a course of action while utilizing the Impact Cycle (Knight, 2018). Therefore, the beliefs and confidence of the participants in the study were positively influenced because they had the autonomy to make instructional decisions and could experience instructional effectiveness.

Some of the participants were unhappy with their first videos for various reasons, but throughout the study, they became more comfortable with video analysis and learned to appreciate the advantages and convenience of video analysis. According to Knight (2014a), many teachers are unaware of what their teaching looks like until they see the video, so they do not feel the need to change. In this study, participants saw their current reality in their first videos and saw the need to make changes. The video analysis and feedback sessions enabled the participants to deeply analyze their teaching, set goals for themselves, and then make changes.

The feedback sessions were positive and focused on each teacher's strengths and how the researcher and teacher could work together to build upon those strengths. If weaknesses were identified, then the participant and researcher collaborated to find a solution to the problem of practice. The teachers found the video analysis treatment to be challenging yet manageable. Because the researcher had established a strong rapport with all of the participants, it made the difficult work of video analysis more palatable for all

involved. One of the primary reasons that success in this study was achieved was because the researcher had established strong rapport with all of the participants prior to the time that the research was conducted. The principal spends a significant amount of time in classrooms to gain a deep understanding of what is happening and how she can best support teachers and students and also provides informal and organic discussions to drive success in all aspects of the school day. Additionally, the researcher's vision of a culture of excellence empowered all participants to diligently work toward the common goal of instructional improvement.

The feedback session videos allowed the principal and researcher to grasp the finer points of the teachers' responses and her own responses. The undertaking of analyzing, not just viewing, each classroom instruction video was paramount to the success of the feedback sessions. Although they were not asked to do so, most of the participants took detailed notes from their video observations and were well-prepared to have detailed dialogue about what occurred during each lesson. Although two teachers had somewhat significant problems with their instruction that needed to be corrected, the principal kept the dialogue positive and attempted to give each teacher differentiated feedback according to agreed-upon strengths and weaknesses. By utilizing effective communication skills and emotional intelligence, the principal was able to help both teachers identify specific problems with their instruction, support them in learning ways to address the problems, and then improve upon their identified weaknesses.

The most prominent weakness in many of the videos was that the teachers simply talk too much and do not allow students enough time to apply their learning. This was an expected but key finding from the research. The researcher led a book study in 2017 on

Burkins and Yaris (2016) book entitled *Who's Doing the Work? How to Say Less so Readers Can Do More.* The researcher also scheduled a professional development session with author Jan Burkins for all teachers at her school in the spring of 2017, so the problem of teachers talking too much has been on the researcher's radar for a few years. This is a problem of practice in most classrooms and is not unusual to this school. Teachers have a wealth of knowledge to impart to students, and it is difficult to transition from the teacher teaching to students doing the work and learning the content. This has been an ongoing conversation among teachers and the principal at the school, and the video analysis treatment highlighted this to the participants. Although this problem of practice needs to be corrected, the researcher considered this problem to also be a strength because the problem was seen by many of the participants, and this caused them to have additional conversations with their peers about the issue. As a result of the treatment and research, now all participants have proof of the issue. Hopefully, significant improvement in this area will occur.

While there is never enough time in an educator's day to accomplish all that needs to be done, for the purposes of this study, the participants made a commitment to spend time analyzing their classroom video and having feedback dialogue with the principal. In most cases, the participants spent additional time, on weekends and after the school day ended, analyzing video and receiving feedback from the principal. Because of the busyness of the school day and the myriad of responsibilities that teachers have, the principal was unable to add time to the school day or take away responsibilities of the participants. It was the participants' commitment of time and their willingness to participate that enabled the researcher to complete the study.

The principal's transformational leadership style, along with strong communication and emotional intelligence skills and an expectation of a culture of excellence, played an important role in the success of this study. The combination of face-to-face dialogue and the transformational leadership style were influential in conveying the goals of the research and in maintaining inspiration while the participants completed the difficult and time-consuming work of video analysis. The principal's vision of the importance of video analysis in increasing self-efficacy and collective teacher efficacy while also improving instruction was a critical aspect of transformational leadership. The rich medium of face-to-face feedback empowered the participants and the researcher to have ongoing dialogue about the intricacies of classroom instruction and further enabled the principal to personalize feedback to each individual teacher. The researcher's emotional intelligence skills prepared her on a few occasions to deliver difficult feedback to participants while still offering encouragement and support. Finally, the researcher had established a culture of excellence over the course of five years at the school where this study was conducted. The subject of excellence is often discussed, and the researcher holds the expectation of excellence for herself and all faculty and staff. This culture of excellence played an essential role in the school's success.

Conclusion

This chapter reported the findings of the study and described the process for the study and how the qualitative analysis was achieved. The research findings were organized by the research questions, and a thematic analysis was utilized. The themes that emerged from the video analysis provided rich, detailed descriptions of the feedback sessions and focus group interview sessions.

The findings of the research showed that the use of video analysis positively influenced teachers' self-efficacy, collective teacher efficacy, and instructional decision-making. All participants reported that their abilities as classroom practitioners was improved through the treatment of video analysis and instructional feedback cycle. The teachers' perceptions of video analysis improved from the beginning of the study to the conclusion. The teachers' responses highlighted a recurring theme: The use of video analysis increased self-efficacy and collective teacher efficacy because it empowered teachers to see a problem of practice, diagnose the problem, and then prescribe an intervention or change in practice.

Teachers' instruction was influenced in a variety of ways through the treatment. Participants reported that they noticed things that they would not otherwise have noticed. In particular, the treatment improved their knowledge of students so that teachers could provide more effective instruction that was aligned to students' needs. Video analysis positively influenced teachers' instructional effectiveness by helping the participants take time to watch their own instruction and analyze and reflect upon ways to improve. A key finding was that the amount of the time spent on dialogue about teachers' instruction and student learning was worth the time. Overwhelmingly, the participants felt successful after taking part in the video analysis treatment and were willing to utilize the process again in the future.

CHAPTER V: DISCUSSION AND IMPLICATIONS

This chapter presents a summary of this research and conclusions that were drawn from the data in the previous chapter. A discussion of the implications of the study and how those implications might influence the profession will be provided. The chapter concludes with limitations of the study and recommendations for further research.

Summary of the Research

Through analysis of a variety of test scores for the State of Alabama (U.S. Department of Education, Institute of Education Sciences, 2011; Robinson, 2018), it is evident that changes should be implemented to ensure that students have the knowledge and skills needed to succeed in college and career. Hattie (2009, 2012) encouraged all stakeholders of education to work collaboratively to discover what works best in relation to teaching and learning. Donohoo et al. (2018) asked educators to consider which changes needed to occur that would positively impact teachers' instruction and students' learning. Knight (2014) encouraged educators to analyze and reflect upon their instruction so that their impact on student learning would be increased. However, it is difficult for teachers and administrators to find the time needed to deeply reflect and make true and lasting changes to instruction that will then impact student learning. The use of video analysis can greatly influence the change process for teachers (Knight, 2014a).

This study utilized video analysis as the treatment based on Knight's research (2014a) that posits that the use of video analysis greatly influenced the change process for teachers. The treatment empowered the participants in their ability to diagnose problems and then prescribe strategies and practices that had a positive impact on student learning. The addition of three feedback sessions with the school principal helped the participants and the principal in gaining a deeper understanding of how to move forward in determining the most effective next steps in instruction. Knight's (2019) Impact Cycle was utilized in each feedback session and played an essential role in improving instructional effectiveness and teacher efficacy. It is important to note that 100% of the participants reported that their abilities as classroom practitioners were improved as a result of video analysis. This was a significant finding.

The purpose of the study was to explore how the use of video analysis and engagement in an instructional feedback cycle influenced teachers' efficacy beliefs and instructional decisions. The focus was on empowering individual teachers to determine their own professional learning and development goals and improving teacher self-efficacy and collective teacher efficacy. The research questions that guided the study were:

1. In what ways did the use of video analysis influence teachers' instruction?

2. In what ways did the use of video analysis influence teachers' self-efficacy?

3. In what ways did the use video analysis influence teachers' collective efficacy?

4. How did participating teachers' perceptions of video analysis and instructional feedback cycle differ from the beginning of the treatment to the end?

The design for the qualitative study was a phenomenological approach and took place in an elementary school setting. Eleven participants were taken via a convenience sample and participated on a voluntary basis. Quantitative data and analysis were planned for the study, but because of the lower number of participants, statistical significance was not achieved. Therefore, the quantitative data was not included in the results of the study. Qualitative data was collected through responses given by teachers in the instructional feedback sessions and focus group interview sessions. All participants received the video analysis treatment.

Findings Related to the Literature

The focus of the literature review was on discovering ways in which the school principal could serve as a catalyst in forging paths that effected true change in instruction that results in a positive impact on student learning. The results of this study showed that the school principal was a catalyst who led true change in instruction through the use of video analysis. The changes in instruction may have been minor, but they were changes nonetheless. Without the video analysis treatment and feedback conversations, very few changes would have occurred. This aligns with research from Goddard et al. (2015) which found that a strong instructional leader can be a catalyst in facilitating teacher collaboration that has a goal of strengthening belief systems that improve student learning.

According to research (Mihaly et al., 2018), school principals have become instructional leaders whose focus is on leading instructional efforts that improve student learning and achievement. As a result of this new role, principals must be equipped to

provide detailed and timely feedback to teachers. DeWitt (2018) discussed that it is vitally important for school leaders to have the ability to offer deep feedback to teachers. In this research study, the principal analyzed every video and held three feedback sessions with each of the eleven participants. The results of the study showed that this deep feedback, along with the video analysis treatment, had a positive influence on the participants' instructional effectiveness and their sense of teacher efficacy, both self and collective. This is an important finding to the field of education. All educators and stakeholders want to increase student learning, and there are a myriad of techniques and strategies that might work. However, as Hattie (2009, 2012) writes, educators must heed the research and utilize the strategies that work best. According to the results of this study, the use of video analysis and deep feedback given to teachers is a practice that positively impacts teachers' sense of efficacy and instructional effectiveness. A level of difference was achieved in instructional decision-making when video analysis was utilized. This was evidenced by teachers' responses in the focus group interview sessions.

Collective teacher efficacy is more important now than ever before given the challenges that educators face (DeWitt, 2018). In the year of COVID-19, the time during which the research study was conducted, all educators faced innumerable challenges in their daily work lives. It was evident throughout this research process that the participants had a strong sense of efficacy. They knew how important their daily instruction was to this group of students who had missed a large portion of the last year of instruction. The teachers who participated in the study were open to new ideas and were willing to experiment with new methods, and they demonstrated persistence when they faced setbacks and difficulties. The findings in the current study confirm Hattie's research

(2012) noting that collective teacher efficacy positively impact teachers' instruction and student learning.

The power of video in the development of self-reflection was another important finding of this research study, and this aligns with Fuller and Manning's research (1973). Qualitative findings showed that the use of video analysis was powerful in helping the participants see what actually occurred in their lessons in comparison to what they remembered. This study yielded two primary findings. First, the amount of time that teachers provide direct instruction was unevenly matched to the amount of time that students were given time to discuss the content that would enable them to gain a deeper understanding of what had just been taught. Secondly, timing was found to be an obstacle in some of the participants' video analysis. On the one hand, two of the teachers struggled with moving through their reading foundational skills lessons according to the time limits shared in the curriculum's instructional routine manual. On the other hand, a few more of the participants noticed that they jumped in too quickly to assist students and did not give adequate time for all students to consider and respond to their questions. Video does not lie (Knight, 2014a), and this understanding assisted the study's participants in closely examining what happened instead of what the teachers thought had happened.

The rich and detailed conversations about classroom instruction would not have been experienced without the use of video analysis. This finding corresponds with Knight (2014a). The use of video allowed the teacher and administrator to gain a clear picture of reality, and they had meaningful discussions about next steps in instruction. Likewise, Knight's research (2014b) on *habituation* was found in various aspects of this study.

Teachers are likely to become used to what they observe every day, and their understanding of class dynamics often become less accurate over time. The video analysis treatment improved the participants' understanding of their strengths and weaknesses and provoked teacher learning.

The feedback sessions between each participant and the principal were found to be helpful to both parties as they empowered both teacher and principal to see and discuss together the intricacies of teaching and learning. Hollingsworth and Clarke (2017) found that teacher agency carried pivotal importance in determining learning opportunities, and further acknowledged that feedback from shared observations was a powerful influence on teacher and student learning. This finding was correlated in the research study when teachers decided which element of their instruction they wanted to work on. The participants determined their own learning opportunities, and the feedback from the shared observations was yet another powerful influence on teacher learning. Additionally, the reflection process was key to the changes made. The study by Tripp and Rich (2012) was reciprocated in the current research.

The Impact Cycle coaching model (Knight, 2018) was utilized as the framework for the instructional feedback sessions. The model was practical and provided ease of use for all participants. Each teacher looked for at least one factor in their instruction that they wanted to improve upon. They identified a student-focused goal and a teacher strategy that they used to reach the goal. The participants then found strategies to assist them in modifying their practice; they accomplished this by conferring with the instructional coach, principal, and/or with their colleagues. The strategies were implemented, and progress data was collected to find out if the goal had been reached.

This coaching model proved to be effective in helping the participants identify a goal, learn about a strategy that would enable them to reach the goal, and improve to achieve the goal.

The *Visible Learning* construct was utilized as a learning methodology and a scaffold in the research and was found to be an important factor in teacher learning. Fisher et al. (2016) wrote, to accomplish visible learning, students must understand what they are learning and why they are learning it. They must also understand what success in the learning encompasses. Teachers, too, must hold a deep understanding of what student learning entails and how to achieve it. The concepts of surface, deep, and transfer learning (Fisher et al., 2016) were discussed among the participants and principal many times throughout the study. When concerns were raised over students who struggled with their learning, often the conversation circled back to whether the students had mastered surface and deep learning in the particular content area and then the reason(s) for the lack of transfer learning was often discovered. Learning intentions and success criteria have been part of the dialogue in the research school since the fall of 2019. The Visible Learning philosophy has become part of the fabric of the school and plays a significant role in teachers' ongoing dialogue regarding the impact they expect to have on student learning. Hattie's "hinge point" (2009) of 0.40 and his barometer of influence (2009) were a determining factor in many of the strategies that the participants chose.

DeWitt (2018) discussed the need for ongoing collaboration between school leaders and teachers so that all can work together to provide effective instruction that positively impacts student learning and achievement. The issues that educators must fix are too large for individuals to accomplish alone. This held true in the research. Ongoing

collaboration between the participants and the principal was an important factor in instructional improvement. Success most likely would not have been accomplished without the ongoing collaboration between the participants and the principal.

The data from this research showed that collective teacher efficacy was increased from the beginning of the study to the end. This occurred because of a few different factors. First of all, because each individual teacher's self-efficacy increased, a resulting end product was that collective teacher efficacy also increased. The ongoing collaboration that occurred during the study had positive effects on each participant, both individually and collectively. Goddard et al. (2015) discussed the importance of principals' instructional leadership and pointed out that leadership and collaboration among teachers may contribute to school effectiveness by strengthening collective efficacy. It was found that administrators could have a significant direct effect on teacher collaboration, which in turn, predicted the collective efficacy beliefs among an entire faculty. The findings in this study (Goddard et al., 2015) predicted student achievement differences according to the level of collective efficacy beliefs. This was a significant finding because it suggested that strong instructional leadership is crucial in the facilitation of reinforcing organizational belief systems which foster student learning. This research was duplicated in the current study which found that school leadership and teacher collaboration, in harmony with one another, contributed to instructional effectiveness because collective efficacy was strengthened.

Implications

This study has implications that are relevant to principal practitioners, district and state boards of education, professional development organizations, and teacher

preparation programs. The interdependent constructs of teachers' sense of efficacy and instructional effectiveness are important considerations in the field of education and hold a pivotal role in the collective work to improve teaching and learning.

The commitment of time was critical to this study being completed, and this was also a primary driver in the success of this study. Over the course of the research study, the researcher spent between one and two hours with each individual teacher, and the entire time was spent on discussion of teaching and learning. This extensive amount of time with each participant produced meaningful results that would not have otherwise been achieved. In K-12 public education, time is lacking for all teachers and administrators. There is never enough time in the day or year to accomplish all that needs to be done because there are always scores of students who need additional time and assistance. The gift of time was essential to this study. Because all of the participants and the principal had to carve out time in their busy schedules to complete the research, it was found that this element was beneficial to all involved. In most schools, there is almost no time allocated for each individual teacher to meet one-on-one with the principal. Generally, the annual evaluation is the only time that principal and teacher have a conversation about the instructional effectiveness, and at most, this discussion lasts thirty minutes. Resultingly, this lack of time for the school leader and his/her teachers to meet to discuss instruction on a case-by-case basis is detrimental to teachers' professional development and students. The researcher suggests a strong commitment to carving out time in the school day so that both teachers and school leaders can participate in video analysis. Time is scheduled for all manner of activities in schools: special events and presentations, fundraisers, field days, pictures with Santa, etc. School leaders simply need

to lead the charge in making video analysis a priority and be creative in their scheduling of teachers' time.

For school principals, there are inherent differences between supervision and evaluation while there is also an intersection between the two roles of instructional coach and principal. The acknowledgement of the similarities can allow school principals to better understand an instructional coach's role so that more effective teaching and learning can take place (Mette et al., 2017). In the school where this study took place, the instructional coach does not have a supervisory or evaluative role and is an equal to the rest of the faculty while the principal is the supervisor and evaluator. The researcher, who is also the principal, perceives her purpose as a leader who can support teachers in instructional improvement in a similar fashion as an instructional coach, and also understands the importance of fostering trusting relationships with teachers so that the instructional feedback cycle can be successful.

During the course of the research, the participants and the principal noticed many intricacies and fine-grained evidence of teaching and learning that influenced how they moved forward. In several cases during the study, the principal noticed elements of teaching and learning that the teacher did not see, and vice versa. On a few different occasions, the principal encouraged the teachers to change the camera view to focus on student interactions, and this assisted both parties to notice a variety of observations with many students. For example, one teacher noticed that she had a student who "carried the class" and as a result, other students did not have sufficient opportunities to practice their learning. The teacher would probably not have noticed this without video analysis and reflection.

In most cases, the principal noticed effective instruction while the teachers were quite critical of their own teaching. After the first round of feedback sessions, the teachers were more relaxed and felt freer to discuss their strengths and weaknesses. Because the goal was for the principal to be non-judgmental and to focus on the positive aspects of the teachers' instruction, the teachers felt empowered, rather than threatened, and thus, instructional improvement occurred. Additionally, the use of video analysis helped the participants and the principal to collaborate in finding a solution to a problem of practice. For instance, math fact fluency has been an ongoing problem at the school. For years, local testing data shows that a majority of students have struggled with learning math facts with automaticity, flexibility, and fluency. Many discussions about this problem have taken place for years, and numerous professional developments to address the problem have been offered. Some progress has been made according to various local data points, but there is still a significant number of students who are unable to learn their math facts so that they are successful with math content, particularly in grades four and five. This lack of math fact fluency negatively impacts students' future success in math. During the research study, two teachers videoed their math instruction, and in both cases, the teachers reported that watching their videos enabled them to understand their students' thinking. In the busyness of teaching, it is difficult for teachers to notice students' misunderstandings, but when these two teachers watched their own math instruction, they were able to better understand the students' line of thinking. This, in turn, informed their instruction and intervention so that they could more strategically support student learning.

Another significant problem of practice at the school is that teachers teach too much, meaning they have a tendency to do more of the work than do students. The principal has noticed this problem and has mentioned it on many occasions to the entire faculty and to individual teachers. The researcher believes that this research study revealed to most of the participants how much of the work they do while teaching. This corresponds to Knight (2014a) and an anecdote from his book *Focus on Teaching* about a man who took tennis lessons in 1974 and had an erratic backhand. The gentleman, Jack, had taken twenty hours of tennis lessons with various tennis coaches but could not correct his backhand. Tennis pro Timothy Gallwey asked Jack to watch his swing in front of a large reflective window. Jack immediately realized that he took his racket too high in his backswing. Even though five tennis pros had told him the same thing, Jack could not correct his backhand swing until he saw the problem himself. He really didn't know because he had not directly experienced his racket going high above his shoulder. The participants in the current study had a similar experience. The principal had led discussions for years about the fact that teachers talked too much. The conversations were never accusatory and often held an element of humor. However, the use of the video analysis treatment finally showed the participants how much time they spent talking and providing direct instruction instead of empowering students to learn the content.

Lastly, the researcher and principal realized that her feedback to teachers must be more targeted and individualized. This is difficult to accomplish in any school due the number of teachers and students and the seemingly limitless responsibilities that a school principal has. The dialogue between each individual teacher and the principal during the feedback sessions revealed that every teacher has different strengths and weaknesses, and

each teacher has different professional development needs. The results of the research highlighted the need for the researcher to make an ongoing and concerted effort to provide professional development that is targeted to each teacher's needs. This will be difficult to accomplish, but it is an important need that would result in more effective instruction and therefore, improve student learning and achievement.

Limitations

The small sample size of eleven participants was a limitation of the study. As mentioned earlier in Chapter IV, the teachers at this school are already highly effective and are equipped to deliver excellent and targeted instruction as measured by state testing and other student achievement results. The principal and researcher has been the leader of this school for five years, and the focus of her leadership has been on improving teachers' pedagogy and instructional effectiveness. Therefore, it was expected that this study might have a small increase of scores due to the large number of expert teachers who already exhibit a strong sense of efficacy at this school. The positive results of the study may not be able to be reciprocated in another setting. This is a faculty who discusses instructional effectiveness and student learning and achievement every day; it is the foundation of our work. The dedication and expertise of the participants and all teachers at this school cannot be underestimated.

Recommendations for Future Research

The use of video analysis to improve teachers' efficacy, both self and collective, along with improvement of instructional decisions, has the potential to be a catalyst for change in a variety of school settings, professional development organizations, and teacher preparation programs. The findings of the research found that 100% of the

participants reported that their abilities as classroom practitioners were improved as a result of video analysis. This success was an unexpected and promising finding.

A recommendation for future research is for this study to be replicated with a larger population. The same research questions could be examined to see if similar results are found. Another question to research might be on how the feedback from the school principal influences teachers' instruction. More specificity in how feedback can be utilized to assist teachers in achieving a strong sense of efficacy and improving instructional effectiveness would be beneficial to future research.

A second recommendation for future research would be to investigate the amount of time that teachers spend providing instruction correlates to actual student learning and achievement. An important finding in this study that was unexpected was the amount of time that teachers spend talking, albeit teaching, during a typical school day. Time is incredibly important during the course of the school day; there is never enough time to accomplish all of our goals. More examination is needed on which elements of instruction can be minimized so that more time can be spent on students' application of their learning.

This was a simple and straightforward research study that can be replicated quite easily in other settings, including middle and high school settings. However, the key to success is ensuring that teachers have the expertise needed to effectively move forward in their planning, collaboration, instruction, and assessments. Results like this do not happen after a few days of professional development. It takes years of building trusting relationships, planning meaningful professional development, constantly monitoring all manner of data points in all content areas, and always reassessing and changing course

when needed. It takes hard work and dedication to teaching and learning. The National Board process also played a critical role in the success of this study. The researcher would not have known what an impact the process of video reflection and analysis can have if she was not a National Board Certified Teacher herself. It should be noted that four of the participants are going through the National Board process and as a result of their National Board candidacy, they have gone through a rigorous process designed to empower them to further their understanding and application of teaching and learning.

Conclusion

While a school principal does not have a direct impact on student learning and achievement, she does have direct impact on her teachers' sense of efficacy and instructional effectiveness (Donohoo et al., 2018). The importance of teachers' strong sense of efficacy and their instructional effectiveness cannot be underestimated in gaining ground on student learning. We must make forward progress in determining what works *bes*t in students' learning (Hattie, 2012). More conversations must occur between educators who work in the field and those who support, i.e. district offices and teacher preparation programs. The task is difficult but not insurmountable.

An effective school leader can be a catalyst for change and can thereby improve both teaching and learning. A simple way to effect true change is to utilize video analysis to improve teachers' sense of efficacy and instructional effectiveness. The use of video analysis enhances teachers' understanding of what actually happens in their classrooms and allows them to adjust when needed. This process is easy to implement and can be very beneficial to both teachers and students. Twenty-first century technology provides ease of use to implement video analysis on any given day. Any teacher in any school can

utilize video analysis and can experience improvement in a matter of days. Video analysis can be used as a collaboration tool to increase application of new or old ideas and strategies and can improve teachers' understanding and conversations around what works best in their classrooms. In particular, school administrators should consider the use of video analysis as they have a myriad of responsibilities and very little time; video analysis offers flexibility and there are fewer time constraints with video analysis because the administrator can watch the video anytime. School leaders must be catalysts for change because "Every student deserves a great teacher, not by chance, but by design" (Fisher et al., 2016, p. 2).

Finding what works best in relation to teaching and learning is paramount to the future success of America's students. It is critical that educators and stakeholders hold a solid understanding of what really happens in classrooms and what needs to be adjusted in order to positively impact student learning. It is our moral imperative to improve so that our students are well-prepared to lead productive and fulfilled lives.

REFERENCES

Anast-May, L., Penick, D., Schroyer, R., & Howell, A. (2011). Teacher conferencing and

feedback: Necessary but missing! *National Council of Professors of Educational

Administration Publications.* http://cnx.org/content/m38157/1.2/

Argyris, C., & Schon, D. (1974). *Theory in Practice Increasing Professional

Effectiveness.* San Francisco: Jossey-Bass Publishers.

Baecher, L., & McCormack, B. (2014). The impact of video review on supervisory

conferencing. *Language and Education*, *29*(2), 153–173.

https://doi.org/10.1080/09500782.2014.992905

Balyer, A. & Ozcan, K. (2020) School principals' instructional feedback to teachers:

Teachers' views. *International Journal of Curriculum and Instruction, 12,* 295-

312.

Bandura, A. (1971). Social Learning Theory. *General Learning Press.* Library of

Congress Catalog. 75-170398.

Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist,*

44(9), 1175-1184.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning.

Educational Psychologist, 28(2), 117–148.

Brinson, D. & Steiner, L. (2007). *Building Collective Efficacy How Leaders Inspire Teachers to Achieve.* The Center for Comprehensive School Reform and Improvement.

Burkins, J. & Yaris, K. (2016). *Who's Doing the Work? How to Say Less so Readers Can Do More.* Stenhouse Publishers.

Carmouche, M. & Thompson, Jelisa. (2018). Supervisory Teacher Coaching in K-12 Classrooms. *Journal of the American Academy of Special Education Professionals.*

Carmouche, M., Thompson, J., & Carter, L. (2018). Effects of Professional Development and Videoconferencing on the Increase of Opportunities to Respond and the On-Task Behavior of Students with Emotional Behavior Disorders. *Journal of Information Technology Education Research, 17,* 127-157. https://doi.org/10.28945/4060

Crain, T.P. (2019, November 2). *Alabama's dead last scores wake up call for officials.* https://www.al.com/news/2019/11/alabamas-dead-last-test-scores-wake-up-call-for-officials.html

Creswell, J. (2009). *Research Design; Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). Los Angeles: Sage.

Department of Education. (2009). *Race to the top program: Executive summary.*

DeWitt, P. (2018). Using the Visible Learning Research to Influence Collaborative Leadership. *Education Sciences, 8*(4)*,* 219. https://doi.org/10/3390/edusci8040219

Donohoo, J., Bryen, S., & Weishar, B., (2018). Implementing High-Leverage Influences

    from the Visible Learning Synthesis: Six Supporting Conditions. *Education*

    Sciences, 8(4)*,* 215. https://doi:10.3390/educsci8040215.

Ed.gov. n.d. *Every Student Succeeds Act (ESSA) | U.S. Department of Education*.

    https://www.ed.gov/essa. [Accessed 20 March 2020].

Eells, R. (2011). *Meta-Analysis of the Relationship Between Collective Teacher Efficacy*

    and Student Achievement. [Doctoral dissertation, Loyola University Chicago].

    Loyal eCommons.

Fasching-Varner, K.J., Mitchell, R.W. and Martin, L.L. (2014). Beyond School-to-Prison

    Pipeline and Toward an Educational and Penal Realism. *Equity & Excellence in*

    Education, 47(4), 410-429. https://doi.org/10/1080/10665684.2014.959285

Feeney, E. (2007). Quality Feedback: The Essential Ingredient for Teacher Success. *The*

    Clearing House: A Journal of Educational Strategies, Issues and Ideas, 80,(4),

    191-198. https://doi.org/10.3200/TCHS.80.4.191-198

Fisher, D., e& Frey, N. (2018). The Long View of Visible Learning's Impact. *Education*

    Sciences, *8*(4), 174. doi: 10.3390/educsci8040174

Fisher, D., Frey, N., & Hattie, J. (2016). *Visible Learning for Literacy: Implementing the*

    Practices That Work Best to Accelerate Student Learning. Corwin.

Flushman, T., Guise, M., & Hegg, S. (2019). Improving supervisor written feedback:

    Exploring the what and why of feedback provided to pre-service teachers. *Issues*

    in Teacher Education, 28(2). 46-66.

Friedman, I., & Farber, B. (1992). Professional Self-Concept as a Predictor of Teacher

    Burnout. *The Journal of Educational Research, 86*(1), 28-35.

    https://doi:10.1080/00220671.1992.9941824

Fuller, F.F., & Manning, B.A. (1973). Self-confrontation Reviewed: A Conceptualization

    for Video Playback in Teacher Education. *Review of Educational Research,* 43,

    469-528.

Goddard, R. D. (2001). Collective efficacy: A neglected construct in the study of schools

    and student achievement. *Journal of Educational Psychology, 93*(3), 467-476.

    https://doi.org/10.1037/0022-0663.93.3.467

Goddard, R., Goddard, Y., Kim, E.S., Miller, R. (2015, June 5). A theoretical and

    empirical analysis of the roles of instructional leadership, teacher collaboration,

    and collective efficacy beliefs in support of student learning. *American Journal of*

    Education, 121, 501-530.

Hallinger, P. (2005). Instructional Leadership and the School Principal: A Passing Fancy

    that Refuses to Fade Away. *Leadership and Policy in Schools, 4,* 221-239.

    https://doi.10.1080/15700760500244793

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to*

    student achievement. Routledge.

Hattie, J. (2012, September). Know Thy Impact. *Educational Leadership.*

Hollingsworth, H., & Clarke, D. (2017, August 23). *Video as a tool for focusing teaching*

    self-reflection: Supporting and provoking teacher learning.

    https://works.bepress.com/hilary_hollingsworth/34/

Hougan, E., Johnson, H., Foote, C., & Palmeri, A. (2018). Exploring the Influence of

    Accomplished Teachers' Video and Commentary Pairing on Teacher Candidates'

    Noticing and Thinking about Practice. *Journal of Technology and Teaching*

    Education. 26(2). 217-248.

Houtchens, G.W., Hurt, J., Stobaugh, R., & Keedy, J.L. (2012). Double-loop Learning: A

    Coaching Protocol for Enhancing Principal Instructional Leadership. *Qualitative*

    Research in Education, 1(2), 135-178. https://doi.10.4471/qre.2012.08

Ingvarson, L. & Hattie, J. (2008). *Assessing teachers for professional certification: The*

    first decade of the National Board for Professional Teaching Standards.

    Advances in Program Evaluation. Volume 11, 1-21.

Jerald, Craig D., (2007). *Believing and Achieving*. The Center for Comprehensive School

    Reform and Improvement.

Kane, T.J., Gehlbach, H., Greenberg, M., Quinn, D., & Thal, D. (2014). *The best foot*

    forward Project: Substituting teacher-collected video for in-person classroom

    observations First Year Implementation Report. Center for Education Policy

    Research Harvard University.

Kessinger, T.A. (2011). *Efforts Toward Educational Reform in the United States Since*

    1958 A Review of Seven Major Initiatives. American Educational History Journal.

    Volume 38(2). 263-276.

Knight, J. (2014a). *Focus on Teaching Using Video for High-Impact Instruction.* SAGE

    Publications.

Knight, J. (2014b). *What you learn when you see yourself teach.* Educational Leadership.

Knight, J. (2018). *The Impact Cycle What Instructional Coaches Should Do to Foster Powerful Improvements in Teaching.* SAGE Publications.

Knight, J. (2019). *Instructional Coaching for Implementing Visible Learning: A Model for Translating Research into Practice.* Center for Research on Learning.

Leiter, M. (1993). Burnout as a developmental process: Consideration of models. *Professional burnout: Recent developments in theory and research.* 237-250.

Lenihan, E. (2016). Developing a Culture of Feedback through Microteaching. *International School Journal.* Vol XXXV(2). 82-85.

Mette, I.M., Anderson, J., Nieuwenhuizen, L., Range, B.G., Hvidston, D.J., Doty, J. (2017). The Wicked Problem of the Intersection between Supervision and Evaluation. *International Electronic Journal of Elementary Education. 9*(3). 709-724.

Mihaly, K., Schwartz, H., Opper, I., Grimm, G., Rodriguez, L., Mariano, L. (2018). *Impact of a checklist on principal-teacher feedback conferences following classroom observations.* National Center for Education Evaluation and Regional Assistance. http://ies.ed.gov/ncee/edlabs

Morton, B., & Upton, A. (2020). Collaborative Preparation: Educational Leaders and School Counselors Building Bridges for Effective Schools. *The Alabama Journal of Educational Leadership, 7,* 9-17.

National Assessment of Educational Progress (NAEP). *About NAEP A Common Measure of Student Achievement.* Retrieved July 8, 2020, from https://nces.ed.gov/nationsreportcard/about/

National Board for Professional Teaching Standards. (n.d.). *National Board Standards.*

      https://www.nbpts.org/standards-five-core-propositions/

No Child Left Behind Act of 2001, P.L. 107-100, 20 U.S.C. 6319 (2002).

The National Commission on Excellence in Education (1983). A Nation at Risk: The

      Imperative for Educational Reform. https://doi.org/10.1145/358150.358154

Peeters, A. & Robinson, V. (2015). A teacher educator learns how to learn from

      mistakes: Single and double-loop learning for facilitators of in-service teacher

      education. *Studying Teacher Education 11*(3) 213-227.

      https://dx.doi.org/10/1080/17425964.2015.1070728

Robertson, H. (2008). Eradicating the Achievement Gap. *Black History Bulletin, 71*(1).

      35-38.

Robinson, K.J. (2018). *Restructuring the Elementary and Secondary Education Act's

      Approach to Equity.*

Ross, J.A. & Gray, P. (2020). School Leadership and Student Achievement: The

      Mediating Effects of Teacher Beliefs. *Canadian Journal of Education, 29*(3).

      798-822.

Saldana, J. (2013). *The coding manual for qualitative researchers.* SAGE Publications.

Schon, D. (1983). *The Reflective Practitioner: How Professionals Think in Action.* New

      York: Basic Books.

Shepard, L.A. (2016). Testing and Assessment for the Good of Education: Contributions

      of AERA Presidents, 1915-2015. *Educational Researcher,* 112-121.

      http://www.jstor.com/stable/43996906

Tripp, T.R. & Rich, P.J. (2012). The influence of video analysis on the process of

    teacher change. *Teaching and Teacher Education, 28,* 728-739.

    https://doi:10.1016/j.tate.2012.01.011

Tschannen-Moran, M. & Hoy, A.W., (2007). The differential antecedents of self-efficacy

    beliefs of novice and experienced teachers. *Science Direct,* 944-956.

U.S. Department of Education, Institute of Education Sciences. (2011). *The Nation's*

    Report Card Reading 2011 State Snapshot Report.

    https://nces.ed.gov/nationsreportcard/pdf/stt2011/2012454AL8.pdf

Visible Learning MetaX. (2020, September 21). *What is microteaching?*

    https://corwin.zendesk.com/hc/en-us/articles/360024343794-What-is-

    microteaching-

Wood, R. & Bandura, A. (1989). Social Cognitive Theory of Organizational

    Management. *Academy of Management Review, 14,* 361-384.

Yu, X., Wang, P., Zhai, X., Dai, H., Yang, Q. (2014). The Effect of Work Stress on Job

    Burnout Among Teachers: The Mediating Role of Self-efficacy. *Social Indicators*

    Research, 122(3)*,* 701-708. https://doi.org/10.1007/s11205-014-0716-5

APPENDICES

Appendix A Institutional Review Board

INSTITUTIONAL REVIEW BOARD
February 12, 2021

Principal Investigator:	Valerie Johnson
IRB # and Title:	IRB PROTOCOL: 21-009
	[1700333-2] Considerations of Teacher Efficacy in Response to Video Analysis and Instructional Feedback from School Principal to Classroom Teacher

Status:	APPROVED	Review Type:	Limited Review
Approval Date:	February 1, 2021	Submission Type:	New Project
Initial Approval:	February 1, 2021	Expiration Date:	
Review Category:	45 CFR 46.104 (d)(2): Research that only includes interaction involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior (including visual or auditory recording):		
	iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can be readily ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7)		

This panel, operating under the authority of the DHHS Office for Human Research and Protection, assurance number FWA 00001602, and IRB Database #00000286, has reviewed the submitted materials for the following:

1. *Protection of the rights and the welfare of human subjects involved.*
2. *The methods used to secure and the appropriateness of informed consent.*
3. *The risk and potential benefits to the subject.*

The regulations require that the investigator not initiate any changes in the research without prior IRB approval, except where necessary to eliminate immediate hazards to the human subjects, and that **all problems involving risks and adverse events be reported to the IRB immediately!**

Subsequent supporting documents that have been approved will be stamped with an IRB approval and expiration date (if applicable) on every page. Copies of the supporting documents must be utilized with the current IRB approval stamp unless consent has been waived.

Notes:

There are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data

Visible Learning Implementation Checklist

Self-Assessment Activity

	YES	PARTIALLY	NO
I have high levels of knowledge and understanding of the subjects that I teach.			
I can guide learning to desirable surface and deep outcomes.			
I can successfully monitor learning and provide descriptive feedback that assists students to progress.			
I attend to more attitudinal attributes of learning (especially developing self-efficacy and motivation.)			
I can provide defensible evidence of positive impacts of the teaching on student learning.			
I implement instructional practices and strategies determined to have "hinge points" of 0 .40 or greater, with fidelity, consistency, frequency, and based on causal data.			

Appendix C

Impact Cycle Checklist

CHECKLIST:

Impact Cycle

IDENTIFY:

○ Teacher gets a clear picture of current reality by watching a video of their lesson or by reviewing observation data (video is best).

○ Coach asks the identify questions with the teacher to identify a goal.

○ Teacher identifies a student-focused goal.

LEARN:

○ Coach shares a checklist for the chosen teaching strategies.

○ Coach prompts the teacher to modify the practice if the teacher wishes.

○ Teacher chooses an approach to modeling that they would like to observe & identifies a time to watch modeling.

○ Coach provides modeling in one or more formats.

○ Teachers set a time to implement the practice.

IMPROVE:

○ Teacher implements the practice.

○ Data is gathered (by teacher or coach in class or while viewing video) on student progress toward to the goal.

○ Data is gathered (by the teacher or coach in class or while viewing video) on teacher's implementation of the practice (usually on the previously viewed check list).

○ Coach and teacher meet to confirm direction and monitor progress.

○ Coach and teacher make adaptations and plan next actions until the goal is met.

Appendix D

Permission to Use Observation Forms

Hi Valerie,

Great. Please keep me posted on what you find. I'm more than happy to have you use those forms for your research.

Jim

On Jul 27, 2020, at 2:18 PM, Johnson, Valerie W/Semmes Elm <vjohnson@mcpss.com> wrote:

Hello Dr. Knight,

I hope that this email finds you well. I am one of your biggest fans!

I am writing to request that you allow me to use several forms from your Focus on Teaching book for my doctoral research. I am a doctoral student at the University of South Alabama, and I plan to conduct my research this fall. I would like to use the following forms: Watch Yourself (Fig 3.5), Question Chart (Fig 4.5), Teacher vs. Student Talk (Fig 4.7), After-Action Report (Fig 5.1), and the SWOT Form (Fig 5.5).

My dissertation topic will examine how the use of video analysis can assist teachers and school principals in achieving collective teacher efficacy and instructional improvement and what level of difference is attained between those teachers who receive the video analysis treatment and those who do not. The purpose is also to determine how the instructional feedback cycle can impact collective teacher efficacy and instructional improvement. The focus will be on empowering individual teachers to have teacher agency in determining their own professional learning and development goals and on improving teacher self-efficacy and collective teacher efficacy.

Please let me know if you would like additional information. Thank you for considering my request.

Best regards,

Valerie Johnson, M.Ed., NBCT

Principal, Semmes Elementary School
251.221.1630
vjohnson@mcpss.com

Appendix E

Watch Yourself Observation Form

Watch Yourself

Date:

After watching the video of today's class, please rate how close your instruction is to your ideal in the following areas:

Comments:

Figure 3.5

	Not Close					R
My praise-to-correction ratio was at least a 3 to 1.	1	2	3	4	5	6
I clearly explained expectations prior to each activity.	1	2	3	4	5	6
My corrections were calm, consistent, immediate, and planned in advance.	1	2	3	4	5	6
My questions were at the appropriate level (know, understand, do).	1	2	3	4	5	6
My learning structures (stories, cooperative learning, thinking devices, experiential learning) were effective.	1	2	3	4	5	6
I used a variety of learning structures effectively.	1	2	3	4	5	6
I clearly understand what my students	1	2	3	4	5	6

Appendix F

Question Chart

Figure 4.5 Question Chart

Question	Type	Kind	Level

Appendix G

Teacher vs. Student Talk

Figure 4.7 Teacher vs. Student Talk

Teacher	Student
Total Time _____	**Total Time** _____

Appendix H

After Action Report

What was supposed to happen?

What happened?

What accounts for the difference?

What should be done differently next time?

Other comments? (Please use back of the form.)

Appendix I

Focus Group Questions

1. How did the use of video analysis impact your self-efficacy?

2. How did the use of video analysis impact the collective teacher efficacy of teachers within our school?

3. What did you think about video analysis at the beginning of the research study?

4. How did the use of video analysis impact your instructional effectiveness?

5. How did the principal's feedback impact your decisions in the instructional change process?

6. Will you continue to use video analysis as a way to enhance your instructional effectiveness?

7. How do you expect to use video analysis over time?

8. What did you think about video analysis at the end of the research study?

BIOGRAPHICAL SKETCH

Valerie Johnson began her educational career as an elementary music teacher in 1998. She then earned her master's degree in school counseling and has K-12 experience as a school counselor. After achieving National Board certification in 2011, Valerie learned the importance of ensuring that both teaching and learning occur in all classrooms through reflection of the video analysis process. This was a defining moment in her career, and since then, Valerie's passion for helping every student experience academic success has strengthened. She went on to earn administrative certification and her Educational Specialist degree in Educational Leadership at the University of South Alabama and has been a school principal for five years. She takes her role as school leader seriously and works tirelessly to support all teachers in becoming experts in their content areas. She lives in Mobile, Alabama, and is married with two sons and a daughter-in-law.